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"The Fruit World," Box 1944 G.P.O., Melbourne.

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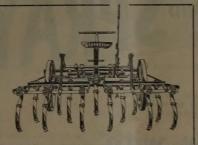
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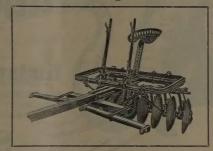
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### Apple and Pear Export.

Will Shipping Contract be Renewed?

TAVING IN MIND the disastrous fall in prices last season when the London market was heavily oversupplied with simultaneous arrivals of huge fruit cargoes, efforts were made when planning the 1933 export season to avoid the repetition of that experience. A schedule of fruit carrying steamers was drawn up with the Conference Lines, designed as far as possible to feed the London market with supplies of fruit which could reasonably be absorbed at profitable prices. Instead of adhering to the schedule, however, further steamers were chartered to lift the heavy quantity of fruit offering, particularly from Victoria and Tasmania. The wisdom of this procedure was questioned by leading exporters; however, because of the pressure occasioned by the large exportable surplus-all cool storage space being practically filled—the ships were engaged, it being quite obvious that much more fruit was available than the Australian market could absorb.

For the first part of the season with modest quantities arriving at various British and Continental ports, remunerative prices were secured for good fruit; then, with the arrival of the chartered steamers, Apple prices weakened until around mid-June over a million cases were landed within three weeks. This was much beyond the absorbing capacity of the market, and prices for many varieties fell below 5/- per case (it was noticeable in this connection that Granny Smiths retained their premier position at around 9/- per case).

How will the season average out? That is the question being asked on all sides. There are some in the trade who take the hopeful view that with the passing of the peak period, prices will recover and that growers on the whole will come out well on the right side. There seems to be a very good chance of the late shipments doing well

Should an average price of 8/6 be secured the season will be recorded as satisfactory because of the exchange in favor of Australia.

Arising out of the effect of the Ottawa agreements, Apple export this season has been extended over a longer period than usual. The last ship to sail from Victoria is the "Jervis Bay" on July 8, when a moderate quantity will go forward.

It was noticeable this season that Continental prices were distinctly favorable. At times, 12/- to 16/- were obtained in Bremen and Hamburg. Such prices will tend to lift up the general average.

The whole question of shipping Apples and Pears from Australia is again under review, and the matter of supplying British and Continental ports with reasonable quantities will be one of the major items to be considered by the Australian Apple and Pear Export Council. The view is held in fruit shipping circles that up to and including the 1933 season, proper shipping facilities have not been available for delivering Australian fruit to British and Continental ports in accordance with the absorbing power of such markets. The fruit shipping programme has been largely subordinated to the convenience of other exportable commodities, and the incursion of eggs and increases in butter and meat have sadly upset the space proportions at suitable dates. How long is this to continue? Can the Conference Lines give the required ser-

vice, or can better arrangements be made on a programme of chartered steamers carrying fruit in allotted quantities to British and Continental ports?

The recent conference in Sydney with shipowners, which ended in an impasse, must not be looked upon as the final word. The fact of this position having been brought about doubtless indicates the earnestness of both sides. The final result is hopefully looked forward to in better conditions in the future for both growers and shipowners.

### PRIMARY PRODUCTS MARKETING BILL.

### Where Does Mr. Hocking Stand?

To the Editor, "Fruit World."

Sir,-I noticed in the press recently that Mr. A. E. Hocking, President of the United Country Party, speaking at Swanpool, said that there was a clamant demand among producers for marketing legislation to control primary products. In May, 1931, when a candidate for the Legislative Council, the same Mr. Hocking told a big meeting of fruitgrowers at Doncaster that he was totally opposed to marketing legislation and would, if elected, vigorously oppose the Primary Products Marketing Bill then under discussion. Fruitgrowers would like to know where Mr. Hocking now stands. Is he in favor of the Primary Products Marketing Bill or is he not? Does he tell a meeting of farmers one thing and a meeting of fruitgrowers another? Perhaps he has changed his views? This subject is of especial interest in view of the fact that Mr. Hocking has announced that Mr. Everard, the member for Evelyn, is to be opposed by a United Country Party nominee at the next election. Mr. Everard is a strong opponent of the Primary Products Marketing Bill. Fruitgrowers, including members of the Orchardists and Cool Stores' Association, would be glad if Mr. Hocking would clearly indicate his attitude in this connection.

Interested.

Blackburn, Vic., 25/6/33.

### IMPERIAL FRUIT SHOW.

London (June 8).—The challenge cups at the Imperial Fruit Show were awarded as follow:—Best Australian Exhibit: George Simpson, with W. Aust. Granny Smith. Best Tasmanian Exhibit: W. D. and H. F. Calvert, with Cleos. Best N.Z. Exhibit: E. H. Turner, Otago, with Jonathans.

Other first awards were:—Calverts, with Sturmers; Simpson, with Dunn's; Illawarra Orchard Limited, with Dohertys, and Calverts, with Democrats.

### IMPERIAL FRUIT SHOW.

An Imperial Fruit Show and Canners' Exhibition will be held at the Coliseum, Park Row, Bristol, England, from October 27 to November 4, 1933. Australian producers should be interested principally in the classes for canned and dried fruit, Oranges, Grapefruit and honey. In the case of Australian exhibits, all entry forms and fees must reach the Secretary, Department of Commerce, 419 Collins-street, Melbourne, on or before August 29, 1933, where all the necessary information is available.

He who receives a good turn should never forget it: he who does one should never remember it.—Charron.

### TRADE WITH THE EAST.

### Good Business Will Follow Visit by Goodwill Ship.

On the return of the "Goodwill Ship," s.s. "Nieuw Holland." at Brisbane, members of the Australian Trade Delegation stated that they were hopeful of good results from their mission. Competition with Japan was very keen and many kinds of goods exported to the Netherland East Indies and the Straits Settlements were meeting unduly severe competition.

Mr. J. B. Murdoch, who represented the Dried Fruits Industry, said he was satisfied that there is every possibility of increased business in dried fruits with the Near East.

### FRUIT CONDITIONS IN U.S.A.

Citrus.--According to its most recent report, the Crop Reporting Bureau of the United States Department of Agriculture states that the production of Oranges and Grapefruit is expected to continue to increase with continued keen marketing competition between the various producing areas. The combined production of Oranges and Grapefruit has increased tenfold during the past 40

Apples.-Should the depression continue for several years, neglect of Apple orchards will become rather general, and eventually may result in considerable abandonment of orchards.

Peaches.-A declining trend is noted in the number of bearing Peach trees in the Southern States and California, but in most other sections, no pronounced changes in the number of bearing trees are anticipated.

Cold storage stocks of Apples, as reported on February 1, 1933, were 3,354,000 bushels less than on the same date a year ago and 9,000 bushels less than the 5-year average.

### DRIED FRUITS IN U.K.

### Vigorous Advertising Campaign Being Conducted.

Mr. W. C. F. Thomas, Chairman of the Dried Fruits Board, when recently in London, stated that he found that owing to heavy stocks of foreign dried fruits in U.K., selling conditions for Australian products were worse than before. The importations from Smyrna of Sultanas were fully 10,000 tons above those of last season, and importations of Californian fruits had also increased. In anticipation of the Ottawa decisions, foreign fruits had been poured into Great Britain. The quantity of foreign fruit there in 1932 was double that of 1931. In view of this, the Dried Fruits Board was starting a vigorous selling campaign, and on account of the good condition of the Australian fruit, he was hopeful that increased sales would result.

### A CITRUS "TALKIE" FILM.

A sound film is being prepared by the Cinematograph Branch of the Department of Commerce showing the growing of citrus fruits, packing houses, and marketing

### EFFECTIVE BURNER FOR PRUNINGS.

An effective orchard burner for the disposal of prunings can be made from a discarded iron tank set on a wheeled framework, and its contrivance should not be difficult for a handy man. The advantages of such a burner are many, remarks a departmental leaflet from N.S.W., giving details of its construction. It is quicker, and therefore cheaper, than carting away the prunings, and it is better for the land than drawing a heavy loaded cart through the orchard. The prunings are destroyed by the fire on the spot along with any fallen fruit, and should they be infested with any insect or infested with disease, the danger of spreading these to other parts of the orchard is lessened.

Orchard burners are also very useful in burning off roots, etc., after ploughing a newly-cleared paddock.

### BROADCASTING LECTURES.

### Interesting Talks From 4QG, Brisbane.

The following lectures by officers of the Department of Agriculture Radio Station, 4QG, Brisbane (Australian Broadcasting Commission), will be given during July:—
Thursday, July 6.—"Diseases of the Flower Garden,"

R. B. Morwood, M.Sc., Assistant Plant Pathologist.

Tuesday, July 11 .- "Maize Production on the Atherton Tableland," O. L. Hassell, Instructor in Agriculture, Mareeba.

Thursday, July 13.—"Diseases of the Vegetable Garden," L. F. Mandelson, B.Sc. (Agr.) Assistant Plant Pathologist.

Tuesday, July 18.-"Tobacco Leaf Qualities," A Hamilton, Instructor in Agriculture, Dimboola.

Thursday, July 20.—"Importance of Sanitation in Chicken Breeding," P. Rumball, Poultry Expert. Thursday, July 27.—"Banana Diseases," J. H. Sim-

monds, M.Sc., Plant Pathologist.

### NEW SOUTH WALES FRUITGROWERS' FEDERATION.

At the annual Conference at the end of June, the following office-bearers were elected:-President, Mr. J. Heane; Board, Messrs. S. C. Martyn and A. J. Taylor (North), R. Hill and W. J. Black (Central Coast), P. C. Best, and F. B. Mackenzie (Metropolitan), F. D. Inman and V. C. Williams (Irrigation), T. A. Tester and A. E. Herring (Southern), H. G. Edgell, and A. U. Tonking (Central Tablelands), H. L. Anthony (North Coast).

### NEW SOUTH WALES APPLE AND PEAR EXPORT ASSOCIATION.

At the end of June, following the Conference of the N.S.W. Fruitgrowers' Federation, a meeting of growers and exporters of Apples and Pears was held. The draft constitution of the N.S.W. Apple and Pear Export Association was adopted. A Council of ten growers and five shippers was elected as follows:-Growers-Messrs, H. V. Smith, A. E. Herring, Batlow; A. U. Tonking, W. J. I. Nancarrow, Orange; W. W. Challis, A. W. Brecht, Kentucky; H. G. Edgell, E. Ray, Bathurst; T. A. Tester, Young; J. E. Nickner, Penrose. Shippers—Messrs. J. W. Blick, J. Holmes, P. S. Macdermott, H. A. Dakin and J. W. Mackenzie. Mr. A. U. Tonking was elected Presi-

### PERSONAL.

Mr. A. J. Honey, Secretary of the Tasmanian State Fruit Advisory Board, passed through Melbourne early in June on his way to Sydney to inspect and report on phases of marketing Tasmanian fruit in Sydney.

Mr. J. A. Parkes, Secretary, Federal Citrus Council and Manager Victorian Central Citrus Association, has made vigorous efforts to secure the lifting of the N.Z. embargo, so far without success.

Gosford citrus growers have asked the Minister for Commerce (Mr. Stewart) for a guarantee against export

Mr. W. N. Sumner, Secretary of the Australian Dried Fruits Association, was in Sydney at the latter end of June.

Mr. J. M. Ward. Superintendent of Horticulture, and Mr. G. E. Kitchen-Kerr, Market Manager of the Federal Citrus Council, attended the annual dinner of the Tongala branch of the V.C.C.A. early in June, and gave helpful addresses regarding production and marketing of citrus.

Following on the retirement of Mr. A. L. Fitzpatrick, a N.S.W. Departmental Fruit Inspector, the position has been filled by Mr. A. D. Graham.

Mr. R. A. Boyle, M.Sc., of Nitrogen Fertilisers Pty. Ltd., delivered important broadcast addresses on the manuring of vines from 3MA, Mildura, on June 12 and 13.

Mr. Underwood, Secretary, Murray Citrus Association, South Aust., accompanied by other members of the Association, visited Canberra recently and urged upon the Prime Minister the seriousness of the N.Z. embargo against Australian fruit, urging that steps be taken to secure its speedy removal.

### FRUIT FOR NORTH OF ENGLAND.

### Can Pineapples be Exported.

Mr. Henry Stonehouse, well-known in the fruit trade at Manchester, England, arrived in Sydney recently. intends to settle in Sydney and engage in the fruit export business. Consignments will be sent by him to the North of England markets, which he says has been neglected by shippers, most of whom concentrate on the London market. If it is possible to ship Queensland Pineapples so that they will keep on the long voyage to England, he will engage in that trade, as he considers the Queensland Pines are a better article than the West Indian and African varieties that now dominate the British markets.

### ORCHARD SPRAYED FROM AEROPLANE.

An orchard near Wheatland, on Bear River, U.S.A., was sprayed from an aeroplane quite recently. Half of a Peach orchard as a comparative test was sprayed from the air and the other half was sprayed in the usual way. This spring and summer the results will be compared to test the efficiency of the plane method.

The usual spray for Peach trees was used and was applied at the rate of an acre a minute. Spraying began at daylight and was stopped as soon as the air became warm, as it was found the spray had not settled satisfactorily on the trees when the atmosphere got warmer.

### OBITUARY.

We regret to announce the death of Mr. Frederick Steadman Vear, elder son of Mr. F. W. Vear, of Melbourne and Healesville, and extend our sympathy to him and family in their loss.

### NEW HYBRID APPLES.

### A Visit to a Wairarapa Hybridist.

By Geo. A. Green, N.D.H. (N.Z.).

Mr. J. H. Kidd, of Greytown, is well known amongst a circle of horticultural friends as a keen observer and successful hybridist. His "Kidd's Orange Red Apple," a Cox's x Delicious cross, is now well known to many, this Apple having already been tried out with good success in many orchards in different parts of New Zealand and Australia. Mr. Kidd's oldest trees of this variety are now quite large and producing several bushels each; although June was well advanced at the time of our visit, we were able to sample Apples of this variety, perfect in color and of the rich aromatic flavor for which it is noted. Certainly in the "Orange Red" Mr. Kidd has an Apple to be proud of.

Other Hybrids.—In the nursery part of the grounds we were shown quite a number of pedigree hybrid Apples in all stages of development. Some have already reached the stage when they will be discarded, others will be kept on for further trials, while still others are showing that they possess desirable qualities which make it desirable that they shall have a still wider trial. One or two of these have decided evidence of possessing qualities which may make them really valuable additions to our export list, for even in this day of reduction of varieties, the objective is still "Excelsior." There is room at the top for a few additional varieties of high quality, the right , season combined with good carrying qualities, freedom from pests, and ease of culture.

The practical hybridist is a person of whom his country should be proud. His work is done on the quiet, and even when success attends his efforts, the financial results are generally negligible.

A Perfect Shelter Break.—There are many other points of interest at Mr. Kidd's. Not the least being a 30 ft. high Pine hedge on the south and west sides of the orchard. The shelter break is nearly 30 years old, and occupies less than 6 feet in width, with flat top and closeclipped sides. It is furnished right to the ground and forms a perfect breakwind. A ten-foot section is clipped each year, thus the whole hedge is clipped all over once in every three years. The fruit trees are growing and bearing equally well practically right up to within 20 feet of the edge.

Cluster Raisins.—We recently received a box of the first product of dried Raisins from Milne Gibson Australian Fruits Products Pty. Ltd., Irymple, Victoria. These were an excellent sample, of good flavor and color and well packed, and the "get up" altogether was highly creditable.

South Africa has extensive areas planted with Australian Wattles. In addition, there are nearly 250,000 acres of Eucalypt plantations. The timbers are being used for hard flooring, waggon building and parquette blocks. Karri timber is being generally adopted for wood pipe, having supplanted Oregon for this purpose.

# Winter Treatment of Orchard Insects.

By K. M. Ward, B.Agr.Sc., Asst. Entomologist, Vic. Dept. of Agriculture.

PRAYING IN WINTER to control many orchard insects is recommended by Mr. Keighley. Mr. Ward, B.Agr.Sc., Asst. Vic. Entomologist, in an illustrated article in the June "Journal of Agriculture of Victoria."

The following are four of the principal orchard insects against which winter control measures can be directed with definite success.

### 1. San Jose Scale (Aspidiotus perniciosus).

This insect lives under a resistant, waxy scale on the bark of Apple, Pear, and other fruit trees, and also on various kinds of wattles, particularly the golden wattle (Acacia pycnantha). If it is not destroyed during the winter it will reproduce rapidly in spring, and will spread to other trees. Each female insect can produce as many as 600 young scales in six weeks.

### Control Measures.

1. Wherever San Jose scale is present on fruit trees spraying is absolutely necessary. The sprays recommended are lime-sulphur (1 in 10) or red oil (1 in 20). The best time to apply these sprays is during July and

early August.

2. In an infected orchard all prunings should be burned. Badly affected branches should be cut out and burned. The burning of prunings is a wise precaution at any time, as they may carry other scale insects, such as Apple mussel scale and olive scale, eggs of red spider and of aphids, live woolly aphids, and various fungus diseases. The actual burning of the prunings can best be done in an old tank which has been cut down and mounted on wheels. It can then be dragged through the orchard while pruning is in progress and the prunings burned immediately.

3. Where wattle trees are infested they should be grubbed out and burned. Indeed, it is not wise to allow

wattle trees to grow near orchards in a district where San Jose scale is prevalent.

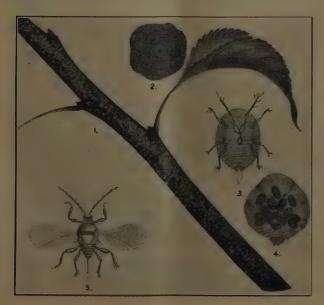
### 2. Green Peach Aphid (Myzus persicae).

This type of insect can be effectively controlled by means of winter spraying alone. With regard to the Peach aphid the success of winter spraying is due to two facts. (i) The aphid deposits overwintering eggs on the Peach tree (in May and June). (ii) Spring infestation of the trees by the aphid takes place only from these eggs (which hatch in July and August).

It has been found, in experiments, that in an orchard where these eggs have been destroyed by an efficient spray material, the activity of the aphid is suppressed for



Peach branch showing curl of leaf caused by aphis.





The San Jose Scale.

1.—Pear branch showing scale; 2.—Female scale (magnified); 3.—Scale, central view; 4.—Female and young (magnified) and 5.—Perfect insect, male.

-Illus, by courtesy "Vic. Journal of Agriculture."





Green Peach Aphid.

1.—Female, winged form (magnified); 2.—Pupa of female; 3.—Earlier stage of female.

the remainder of the year. That is to say, where a suitable egg-killing spray has been applied, there is no fear of the trees becoming attacked by the aphid in the following spring. Peach-growers would be very well advised to make a careful examination of any leaves still remaining on their trees. In many cases winged forms of the aphid may still be present, together with wingless, red-colored forms. These latter are the egg-laying females. Early in June it should be possible to find the black, shining eggs around the buds on the laterals. In cases where the aphids and their eggs are found, the grower should decide at once to apply a winter egg-killing wash to his trees.

A suitable wash for this purpose has been discovered as a result of the experiments referred to above. This material is tar distillate winter wash. There are two important points to be observed in the use of this wash:-(i) Time of Application.—The eggs of the aphid are alked laid on the Peach trees by the middle of June, and they commence to hatch in July. Therefore, sprays should be applied between mid-June and the second week in July. the most suitable time being the first week in July. (ii) The strength of the spray mixture should be 1 gallon of tar distillate in 35 gallons of water. Any black Peach aphids on the trees at the time of spray application also will be destroyed. Tar distillate washes should be applied only to trees which are completely dormant, otherwise severe injury will result. The spray is severe in its effect on the face of the operator, and he is advised to cover all exposed parts of the face with vaseline, or to protect it by means of a suitable mask.

### 3. Codlin Moth (Cydia pomonella).

The codlin moth cannot be completely controlled by winter treatment, but the numbers of moths emerging in the first brood in spring can be very appreciably reduced. The larvae overwinter in various situations, chief of which are—(a) under loose bark on the trunks of fruit trees; (b) in cracks and crevices on other parts of trees; (c) in packing sheds and fruit cases; and (d) in the props used to support branches of trees heavily laden with fruit. Winter treatment of codlin moth involves the practice of orchard sanitation. The matters requiring attention are—

1. The examination of bands and the destruction of larvae in them. The practice of banding involves the removal of loose bark from the tree trunk and placing on the trunk a band of some coarse material. Wool-pack strips are most suitable. Chaff-bag strips are not suitable owing to the openness of the weave. The larvae are

then forced, through lack of other shelter, to enter the band to spin the cocoons in which they overwinter. This band can be examined at appropriate times and the grubs in it destroyed.

Apple and Pear trees should be banded from November to August, but it is particularly important to have bands on the trees before the larvae commence to seek their winter quarters, i.e., before April, as greater numbers of grubs are caught in the bands during the autumn and winter months. The correct time to examine them is during August, i.e., before the moths commence to emerge in spring.

2. Attention to Packing Sheds.—Numerous larvae leave Apples and Pears while these are in the packing shed and crawl to secluded positions to spin their cocoons. In spring the moths emerge and fly to nearby fruit trees to



Codlin moth larva and pupa within cocoons from beneath bark of Apple tree,

deposit, their eggs. Obviously, at the end of each fruit season the grower should seek out these grubs and destroy them. Where possible Apple and Pear store-rooms and packing sheds should be provided with fly-wire screens over the doors and windows to prevent the exit of the moths in the spring.

3. Fruit cases and props, which usually carry a big population of larvae, should be examined and the larvae in and on them destroyed. Only recently as many as 80 larvae were found on one prop in a Harcourt orchard.

4. All waste fruit around the orchard and packing shed should be removed and destroyed, together with other rubbish.

Each codlin moth larva is the potential parent and grandparent of upwards of 3,000 moths in the spring and summer months—hence the desirability of destroying as many larvae as possible during the winter!

4. Red Spider and Bryobia Mite.

The fruit trees attacked by these mites are the Apple, Pear, and Almond. Other fruits may be affected, but not very seriously. In Victoria both of these mites overwinter by means of resistant eggs, which are deposited usually on roughened surfaces on the tree. Frequently the eggs are found on fruit spurs and on leaf and fruit scars; also on props used in the orchard. They are deposited in dense masses in these situations, and although extremely small they are made fairly conspicuous by their reddish coloration. Wherever they are found, spraying should be resorted to as a means of destroying them. The mites are not easily dealt with when infesting the leaves of fruit trees in spring or summer.

The spray materials most effective against these mites are lime-sulphur (1 in 10) or red oil (1 in 20). Either of these sprays should be applied in July or August.

Australia's Canadian Commissioner.—The new address of the Australian Trade Commissioner is—Dominion Securities Building, 15 King-street W., Toronto, Canada.

# Root Stocks of Citrus Trees.

By J. L. Provan, B.Agr.Sc., Horticultural Research Officer, in "Victorian Journal of Agriculture."

THE ROOT-STOCK AND SCION are so closely dependent on each other that differences in the physical functions of either must have a pronounced effect on the tree as a whole. One of the functions of the root-system is to absorb the mineral matter from the soil in the form of a weak solution, and conduct it to the branches, which in turn transfer it to the leaves.

In the leaves this raw food material is manufactured by the aid of sunlight, carbon dioxide, and the green coloring matter into food material for the plant. Some is stored in the branches, trunk, and root-system; but the remainder is used in growth and replenishment of wasted tissue. The root system is solely dependent on the leafy top of the tree for its elaborated food. The essentials of a good root-stock are that it must be compatible with the scion, disease resistant, and long lived, and must not have any detrimental effects on the yield and quality of the early dropping or splitting of the fruit. It must suit the climate and be adaptable to soil conditions, and finally it must be available in sufficient quantities, and be easily raised and propagated.

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question of compatability

is a very important one, because it often influences the growth, productivity, and longevity of the tree. While Lemons propagated on Trifoliate stock are severely dwarfed and Oranges are slightly dwarfed, Mandarins on this root-stock grow very well, and bear heavy crops of





Fig. 1.—Maltese Blood Orange on rough Lemon rootstock at Swan Hill (11 years old).



With some root-stock and scion relationships there is a lack of harmony in these physiological processes, and the tree fails to grow normally. This feature is known as "incompatability," and is well illustrated by at least two examples in citrus culture. One of these is the propagation of the Satsuma Orange on sour (or Seville) orange root-stock, and the other that of Eureka Lemon on the Trifoliate Orange stock. In both these instances the resultant trees are unsatisfactory. Another example of incompatability between root-stock and scion has been observed in the Mildura and Swan Hill districts. In this case the scion was the Maltese Blood Orange, and the rootstock was rough Lemon (Citronelle). This variety of Blood Orange produces a small stunted tree on the rough Lemon root. The root system, particularly in the case of the Mildura trees, was vigorous and healthy, and constantly produced large, vigorous shoots just below the union. Fig. 1 gives a general view of an eleven-years old Maltese Blood Orange on Rough Lemon root-stock growing near Swan Hill, while Fig. 2 shows a closer view of the trunk and union. In the Mildura instance the soil was typical red Mallee sand, and in Swan Hill a heavy, grey, alluvial silt. These two soils represent almost the extremes in Victorian citriculture, and yet on each type of soil the trees under observation behaved in a similar good quality fruit. Nevertheless, there is not perfect compatability even between the Mandarin and the Trifoliate Orange, because the root-stock just below the union strongly outgrows the scion. This is also the case with the common (seed types) of Oranges when grown on the Trifoliate Orange root-stock. Fig. 3 shows a seed type of Orange, about 35 years old, growing on the Trifoliate root-stock.

The most perfect compatability exists when varieties in the same species are propagated together, for example, when the Valencia Late Orange is budded on to the seedling Sweet Orange root-stock. This results in a perfect union between stock and scion and a healthy long-lived tree which produces an abundance of good quality fruit. Observations in several citrus districts have shown clearly that the Sweet Orange is the best root-stock for the Late Valencia. Both the Sour Orange and Sweet Orange are also excellent stocks for the Washington Navel, with the preference in favor of the Sweet Orange stock, except where drainage is faulty.

Where Oranges are being grown without irrigation, and where there is a deficiency of soil moisture at certain periods of the year, the Rough Lemon root-stock must be considered as the most desirable. This is on account of the vigorous root system it possesses and its ability to

withstand droughty conditions. For this reason, it is used almost exclusively in the Wangaratta district where citrus is grown without irrigation. The Rough Lemon stock on our loamy soils, under irrigation conditions, has proved to be a vigorous grower during its early years, but unfortunately it is short-lived, and begins to deteriorate from fifteen years of age onwards according to the soil conditions. In some favored localities, where the drainage is better, it is surviving a little longer, and where drainage is poor, it quickly shows signs of debilitation. Under such circumstances, the sour Orange stock would give much better results, as it can with-



Fig. 2.—Same tree as in Fig. 1, showing trunk and union.

(The coin shown at foot of tree is 1½ in. in diameter.)

stand these unfavorable soil conditions. Another advantage of the Sour Orange stock is its resistance to collar rot and root rot.

Many growers are under the impression that the Sour Orange root-stock is not susceptible to the collar rot fungus. This is not so, and the most that can be claimed for this stock is that it possesses more resistance to attacks of this fungus than most varieties. This resistance varies, and is influenced by the susceptibility or otherwise of the scion worked upon it. Hence Lemons and Washington Navel Oranges on sour Orange stocks show a greater susceptibility to collar rot than does the Valencia Late Orange on the same stock.

The majority of Orange and Lemon trees in Victoria are either worked too near the soil surface or are planted too deeply in the grove.

Deep planting favors collar rot development, especially in Lemon trees. It is often noticed, however, that, although the trunk is affected by collar rot, this infection occurs frequently above the union, and hence the rootstock cannot be said to be susceptible. This phenomenon has been observed also with Lemons worked on Sweet Orange stock. The susceptible Lemon trunk frequently will be infected, while the Sweet Orange stock often

remains healthy. In the past, in Victoria, when observations on the relationship of disease and root-stocks have been made, this aspect has not been given sufficient attention, and hence some confusion exists in the minds



Fig. 3.—Seed-type orange tree on P. trifoliata root-stock showing union and overgrowth of root-stock.

(The coin is 1½-in. in diameter.)

of growers regarding this problem. Washington Navel Oranges growing on Sour Orange stocks in the Irymple (Mildura) district have been observed to be affected by root rot, i.e., infection below the union of scion and rootstock.

(To be continued.)

### ADVICE TO CITRUS GROWERS.

### Danger of Excess Watering: Pest Disease Control.

At the annual meeting of the Tongala Citrus Association, Mr. J. M. Ward (Superintendent of Horticulture), addressed growers regarding green aphis treatment. He advised a tar distillate water wash as it killed all eggs and caused a total extinction of pests. Mr. Ward pointed out the danger of excess watering. Continually pouring excessive quantities of water on orchards would lead to poor results and even kill young trees. He strongly advised the growing of green crops. From experiments it had been found that a crop of peas and beans absorbed 44 per cent. more water than was taken through 4 in. tile drains at a depth of 2ft. 6in. beneath the surface.

tile drains at a depth of 2ft. 6in. beneath the surface.

For brown rot, Mr. W. Nunn, orchard supervisor, advised growers to give two sprayings—one of lime sulphur (strong in the dormant period), and one of Bordeaux mixture. Two sprayings were also recommended for rust in Peaches—one early application in July and another at the end of August. Brown rot and rust could be practically overcome with careful pruning and two sprayings.

### Black End of Pears.

Is it Due to Rootstock or Drought?

THE BLACK END OF PEARS, a troublesome disease which has appeared in Victoria, and which was dealt with in the April "Fruit World," forms the subject of an appreciative letter from Mr. W. A. Birmingham, Assistant Biologist, N.S.W. Department of Agriculture, as follows:—

As will be seen by the following extracts, which may be of interest to your readers, the black end of Pears is considered by some investigators to have relation to the

rootstock, and by others to drought.

An interesting point mentioned in "The Fruit World" is:—"... It is known that trees bearing clean fruit for anything up to 25 years develop the trouble without any warning." If the stock is a contributing factor, one would expect the trouble to manifest itself early in the life of the tree.

Very little black-end of Pear has been met with in New South Wales. This may be due to the fact that Pears are mostly worked on Pyrus communis rootstock in this State. Even if a supposedly susceptible stock is used, variations in susceptibility to black-end may be expected, owing to the stocks being raised from seed and not propagated vegetatively. The condition in New South Wales has been met with mostly in the variety Bartlett (Williams) and on soils which dry out quickly.

M. J. Heppner (Science, N.S., Vol. 15, No. 1,681, pp. 280-281, 1927), carried out an extensive study of blackend of Bartlett Pears, a physiological disease which has been causing heavy losses in recent years in California. The first symptom of black-end, developing when the fruit is quite small, is a shiny and tight appearance of the epidermis (the outer cellular layer) near the calyx end, calyx lobes being forced out and seeming to be set on top of a peak. With advancing maturity, the calyx end either turns black or becomes hard and gritty. In either case the fruit is commercially valueless. Blackend has been found to occur almost exclusively on Bartlett Pears grafted on Japanese stock (Pyrus serotina), the French stock (P. communis) only being affected in very heavy, wet soils. There would thus appear, from these preliminary investigations, to be a connection between the disease and the variety of stock used in grafting.

The same investigation (in the American Society of Horticultural Science Proceedings, Vol. 24, pp. 139-142, 1927) found that black-end was definitely associated with the type of stock employed. In single orchards with part of the trees on Pyrus communis and part on P. serotina injury often reached 100 per cent. in the trees on the Japanese (P. serotina) roots, with no injury whatsoever on trees on French roots. Irrigation was found to have no bearing on the situation. In respect to other rootstocks, no diseased fruits were found on Pear trees on Quince roots, but they were noted in trees on P. ussuriensis and on Keiffer.

Heppner again (in California Station Report, 1928) substantiates his earlier conclusions, namely, that this condition is associated with the rootstock. Inarching with French Pear seedlings is suggested as a promising means of control.

A. M. Frampton, in the "International Review of Agriculture," Year 21, No. 5, pp. 157-160, 1930, states:—
".... There are indications of disease resistant Pear stocks, and in America Pears on certain rootstocks have been found definitely more susceptible to a physiological

disease known as 'black-end' than others, some often showing 100 per cent. immunity and others 100 per cent. susceptibility."

In the publication "Farming in South Africa," Vol. 4, No. 7, p. 569, 1930, the following appears:—"In many cases it was possible to recognise the Japanese rootstock by the characteristic twisting it gives to the tree trunks . . . . the disease in California appears, generally, on varieties that have been grafted on Japanese stocks. It has also been found on varieties grafted on rootstocks of Keiffer and of Pyrus ussuriensis. . . . No signs of the disease have been discovered on varieties grafted on Quinces (Cydonia oblonga). It will appear from the foregoing that the condition can only be avoided by planting trees that have not been grafted on Japanese rootstocks. . . . Certain growers regrafted Bon Chretien on Keiffer and Winter Nelis trees that had been originally grafted on Japanese rootstocks. In both cases, the condition again appeared, and in a worse form on Bon Chretiens than on Keiffers."

Davis and Tufts (Proceedings of the American Society of Horticultural Science, Vol. 28, pp. 634-638, 1932) state: "Individual tree records have been made since 1929 in a number of Californian Bartlett Pear orchards in which black-end occurs. The results showed that the distribution of the affected trees in the orchard is of a purely random character irrespective of the type of soil, an observation that points to the implication of factors as yet unknown. Trees producing black-end fruit in one year generally continued to do so in succeeding seasons, while the relative severity of the condition on a given tree was also maintained from year to year. The largest number of black-end trees occurred among those on Pyrus serotina rootstocks, Keiffer seedling coming next in this respect and P. ussuriensis producing the lowest incidence. In 1931 it was found that the first black-end fruits were formed on trees showing the highest amount of disease in the previous year.

Barss in the Third Crop Pest and Horticultural Report, Oregon, 1915-20, p. 164, says: "In the hotter and drier sections of Oregon, Pears, especially the Bartlett, may be affected by what, for want of a better term, we may call black-end. It is characterised . . . . by a black discoloration of the skin, which makes its appearance close to the calyx end and may extend backward until in extreme cases nearly the entire surface of the fruit may be affected. Fruits showing this trouble are usually abnormal in shape, being rounded at the calyx end instead of depressed. The flesh is involved only to a very slight extent, but the affected skin and the layer of flesh immediately beneath become hard and dry and may crack. The blackened region usually merges indefinitely into the healthy skin, but sometimes there is a definite margin and the blackened portion becomes slightly depressed. Every effort to discover a parasitic organism in the diseased tissues has failed, and all the circumstantial evidence points to the probability that excessive evaporation in hot weather or insufficient soil moisture are responsible for its development, since it appears usually on soils either unfavorable for root growth or unretentive of moisture, or both."

Wingard in Phytopathology, Vol. 16, p. 1011, 1926, referring to black-end of Apple, says: "Observations made on two Apple trees, at Grady, Alabama, 1925, showed a fairly high percentage of the fruits to be affected with the malady described by Barss as black-end. This trouble though apparently not uncommon on Apples and Pears in the hot, dry sections of Oregon and Washington, impressed the writer as being rather unusual in the Southern States. . . The trouble seemed to be unquestionably the

result of the hot, dry season, the drought being the most severe in many years. . . . The soil in the orchard was red clay. This no doubt made the drought injury more severe."

The foregoing information from Mr. Birmingham, is much appreciated. Further contributions on this subject from growers and scientists will be appreciated.

### CANADIAN APPLES FOR GERMANY.

### Increased Trade Follows Reciprocal Trade Agreement.

A REPORT on the Canadian Apple market conditions in London prepared by Mr. J. Forsyth Smith is to hand by courtesy of Mr. D. H. Ross, Melbourne, Trade Commissioner for Canada. This report states that Canada and Germany recently concluded a temporary three months' reciprocal trade agreement whereby Germany gave entry to Canadian Apples on payment of a duty equal to that imposed on American Apples. It is expected that this will be followed by a permanent trade convention along the lines of the temporary agreement.

This removes the handicap which has shut Canada out of the German market for several years past, and should lead to the development of considerable business in the future. Under the new agreement, the duty on Canadian Apples will be 700 R.M. per 100 kilos, instead of the former 15.

### A NEW APPLE.

Mr. George Formby, of Orange, N.S.W., has placed a new Apple on the market, known as "The Minty." It is an American product and although Mr. Formby had tested sixty varieties, none could concede many points to this new variety. The "Orange Advocate" states it is an attractive yellow and has all the qualities of the Delicious and Granny Smith, and is a better cooker than the Granny. It is resistant to black spot and withstands droughty conditions. It has a harvesting period of two months as against six weeks for Granny Smith, which is a very big consideration for orchardists.

### A NEW PEACH.

A new freestone Peach named after Prof. E. B. Babcock, of the University of California, promises to become a successful commercial variety, and one able to complete its dormancy cycle.

The origin of the Babcock Peach grows out of the hybridisation of the varieties of the Peento and Honey groups with others having more desirable fruit characters. Prof. Babcock began the work at the Southern California Plant Pathology Laboratory at Whittier in 1907. Already budwood has been distributed to several nurserymen and fruitgrowers, and propagation has commenced in the vicinity of Ontario. The new variety is described in experiment station circular No. 328, and can be obtained without cost from the College of Agriculture, University of California, Berkeley, U.S.A.

### A NEW BANANA.

A new Banana which is expected to be of great value in the export trade, has been discovered in Trinidad, West Indies. It is a sport from the local Canary Banana, and is said to be immune from disease. It is the same size and color as the Jamaica Banana.

### FRUIT FOR INDIA.

A recent visitor from India stated there was a good outlet for Australian fresh fruit among soldiers in the Indian Army. Australia would do well to have a trade representative in India.

### STANDARDISED APPLE CASE.

The Commonwealth Council for Scientific and Industrial Research is co-operating with the Australian Standards Association and representative fruitgrowers' organisations in an effort to standardise the Australian Apple export case.



Bitter Pit in Victorian Dunn's apples in U.K. this season. There was more bitter pit than usual.

# South Australia.

# SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

A meeting of the Executive Committee of the S.A. Fruit Marketing Association was held on May 26. Mr. H. J. Bishop occupying the chair. There were present Messrs. M. G. Basey, H. J. Bishop, R. A. Cramond, J. S. Hammat, D. W. Hannaford, T. Playford, A. O. Petersen, G. Quinn, J. B. Randell, G. W. Selth, R. O. Knappstein, P. R. B. Searcy, M. Vickers, H. N. Wicks, and the Secretary, Mr. E. W. Mills. Apologies were received from Messrs. A. R. Willsmore, F. B. James and R. B. Pritchard.

New Freight Agreement.—Mr. H. J. Bishop, who was elected to represent the Association at the A.O.T.A. Conference re New Freight Agreement on June 19, said he enquired regarding refrigerated space for Colombo and Southern India.

Thrips Investigation.—The Minister of Agriculture wrote regretting that no grant could be made to the Thrips Investigation League.

Elder, Smith and Co. wrote emphasising that certificates accompanying fresh fruit shipments from Australia to the Dutch East Indies must bear the clause "free from fruit fly."

Research Sub-Committee.—Mr. J. B. Randell reported that at the meeting of the Research Sub-Committee reports were submitted by members in regard to codlin moth control, codlin moth bandaging tests, manurial tests, and comprehensive reports from all members present in regard to the brands of arsenate of lead used, and results obtained.

Fruit Grades.—Attention was drawn to a recommendation made at a recent conference of the Ministers of Agriculture in Sydney that "extra fancy," "fancy," and "C grade," should be adopted in 1935, in lieu of the present terms "standard," and "plain." Mr. G. Quinn explained that all other countries and New Zealand adopt these designations, and it was considered desirable that Australia should fall into lime. A discussion followed on the possible effect of the alteration which was viewed unfavorably by some members.

Advertising Apples and Pears.—Mr. J. B. Randell suggested that the Committee should consider the advisability of spending some money to advertise Apples and Pears with a view to increasing the local consumption. It was pointed out that other products had been advertised, and the advertising had produced a satisfactory increase in local consumption. It was resolved to put the matter on the agenda for consideration at the next meeting, and in the meantime to obtain quotations for advertising, and also, if possible, to obtain information as to the constituent food value of Apples and Pears as compared with other fruits.

# S.A. FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

The monthly meeting of the S. Aust. Fruitgrowers and Market Gardeners' Association was held at Adelaide on June 30.

N.Z. Embargo.—At the May meeting, Mr. G. Jennings presiding, Mr. Underwood (Secretary Murray Citrus Association) stated that in company with others, he had recently visited Canberra and urged upon the Prime Minis-

ter that every effort be made to lift the N.Z. embargo. This embargo most seriously affected citrus growers. Mr. Hobbs said that at the recent annual meeting of the Salisbury citrus growers the N.Z. embargo was causing great concern.

Apple Packing Competitions.—The President offered a perpetual shield for competition amongst school pupils, the name of the winning school to be inscribed yearly. The recent Apple-packing competitions at the Schools' Exhibition at Houghton had shown the keen interest which had been aroused. Mr. Jennings was thanked for his generous gift.

Celery Shipments.—Mr. L. J. Wicks said that large quantities of Celery were being sent by rail and ship to Melbourne and Sydney: transport arrangements were satisfactory. Complaints had been received, however, that some growers were sending Celery of inferior quality, and he urged that this practice be discontinued.

At the monthly meeting of the Campbelltown branch of the S. Aust Fruitgrowers and Market Gardeners' Association on July 10, Mr. H. N. Wicks (Balhannah) will give an illustrated lantern lecture on "Fruit Drinks in the Home." The President is Mr. W. H. Pitman.

On July 5 the monthly meeting of the Marion branch will be held—"question box" night. The Hon. Secretary is Mr. J. R. Duncan.

### MID-MURRAY NOTES.

Renmark (19/6/33).—Once a year the various branches of the Agricultural Bureaux in the irrigation areas meet to discuss matters of general interest. This year's conference was held at Berri on Thursday, June 15, Mr. Ray Moss, President of the Berri branch, occupying the chair. Mr. Ross Johnson, the local secretary, was responsible for the agenda, which was as follows:—Chairman's welcome—Mr. Ray Moss; opening address—Mr. Bruce Murdoch; "Irrigating the Citrus Tree," Mr. A. V. Mills; "Irrigation," Mr. N. Fotheringham (manager of Berri Experimental Orchard); "Growing Sultanas for Profit," Mr. R. A. Chapple; "Drainage in Irrigation Areas," Mr. W. J. Spafford (Deputy Director of Agriculture); "Dipping of Sultanas," Mr. H. Newstead; "The Work of the C.S.I.R. in Irrigation Areas," Prof. Prescott, who is in charge of the Division of Soils, Waite Agricultural Research Institute.

Discussions on the following questions were indulged in:-

1. "Has the locking of the river any effect on the rising water tables of the lower levels of the irrigation areas.

2. "Is there a general rising of water table in the irrigation areas, if so, what steps could be taken to cope with it?"

3. "Is it possible for Dept. of Agriculture to supervise experimental work by practical growers on various soil types (surveyed by Waite Research Institute)?"

4. "How soon can ploughing be commenced after harvest?"

5. "Has it been proved that Showellising dried fruit is effective?"

The following motion was carried, proposed by Mr. Till, and seconded by Mr. Williams (Barmera):

"That it be a recommendation from this conference that the Dept. of Lands be instructed to institute the scientific system of irrigation as outlined by the Council for Scientific and Industrial Research, in Bulletin No. 26

(by A. V. Lyon, M.Ag.Sc.)."

In reply to the motion, Mr. A. C. Gordon, who is in charge of the Dept. of Lands at Berri, produced a chart showing the dates of the various irrigations for many years past, and that they were in close touch with the Dept. of Agriculture and Mr. A. V. Lyon, and were working as near as possible on lines recommended in Bulletin No. 26.

In answer to discussion No. 1, Mr. Gordon said that as the pool level of the river was several feet below the level of the water table on irrigated areas, he could see no connection between the two levels, but considered the local water table to be entirely due to the quantity of water applied during irrigations.

Discussion No. 2 revealed the fact that a decided rise in the water table has taken place within the past few years, and that unless growers are more careful in the use of irrigation water there was a great danger of many

acres going out of cultivation.

In answer to No. 3, Mr. G. Quinn (Chief Horticultural Instructor) said that the Dept. of Agriculture could not undertake any additional work at present without fear of overlapping, but that experimental work was now in progress, and by their co-operation with the C.S.I.R. and Dried Fruits Board, this should yield much valuable data.

No. 4 question was answered by Mr. N. Fotheringham who said that ploughing could commence without injury to vine roots in the middle of May, as at that time the function of the vine had almost ceased and any roots cut by the plough would put out fresh root growth the fol-

lowing spring.

No. 5 was answered by Mr. Bruce Murdoch, who said that although "Showellising" did not give absolute immunity from grub trouble, it was a very great factor in minimising the trouble to the smallest dimensions, and where the process was carried out to the formula laid down by Mr. Showell, it was the most successful of any

process yet tried.

The evening session was wholly occupied by an address by Pro. Prescott, of the Waite Research Institute, who dealt with the scientific work being carried out at the Griffith Research Station in N.S.W., under Mr. Eric West. The Merbein Research Station, under Mr. A. V. Lyon, and the Waite Institute. Dealing with the soil surveys of the various irrigation settlements, the speaker said that the survey was being done as thoroughly as it was possible for such work to be done, and compares favorably with any such work in any part of the British Empire. Names had been given to typical soils which would be recognised all over the world. In all, 51 separate soil types had been encountered at a depth of 5 or 6 ft., and an area of 237 square miles had already been surveyed. Some of the names given to types previously known by their number, are Murray sand, Bookmark loam, Renmark loam, Renmark sandy loam, Ral Ral loam, and as new types are tabulated, native names would be given them, to be sure that they did not clash with soil types of other countries.

Experiments at Griffith on the relationship between citrus growth and manurial tests and the growth of legumes showed interesting results:—

Plot 1, clean cultivation; Plot 2, lucerne between trees; Plot 3, summer annual cow peas; Plot 4, winter annual tick beans; Plot 5, white melilot.

Plot No. 2 revealed the fact that the lucerne competed with the tree for soil moisture, and proved of little commercial value because of it.

All of the plots sown to green cover crops showed better results than the clean cultivated plot No. 1; but No.

4 showed outstanding results as compared with all the rest, the reason of this is now being investigated by a soil chemist on the spot.

Chemical fertilisers alone proved unsatisfactory.

A very important work at Griffith was the removal of surplus soil water by the growth of green crops upon which Pro. Prescott spoke at some length.

The Merbein Station dealt with the movements of salts in the soil, drainage, and various other matters of importance, while the Waite Institute acted as a central depot where the co-relation of all work is carried out. Among the scientific experiments on soils at the Waite Institute, we have been able to isolate the organism which works on sulphur, said Pro. Prescott. This work had taken two years to complete, and was in the hands of Miss Roundtree. Before the right one had been isolated, five different organisms were identified at work, but at last the right one had been isolated.

This organism worked on the sulphur and converted it into sulphuric acid, whereupon an alkaline soil became converted into an acid soil. With the presence of this organism in the soil the act of conversion was rapid, and in a few weeks an alkaline soil was converted for all time into an acid soil, provided that the dressing of sulphur was sufficient. Nearly all river soils were found to be alkaline and a dressing of about 10 cwt. per acre should

be sufficient.

This conference was the most successful one held for years, and a great tribute was paid to the President (Mr. Ray Moss), Secretary (Mr. Ross Johnson), by Messrs. W. R. Lewis and J. J. Odgers for their work in bringing about such a successful gathering.—"Nemo."

# COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH.

### Request for Old Scientific Journals.

From time to time the Council for Scientific and Industrial Research is asked for copies of various publications of the two bodies, namely, the Advisory Council of Science and Industry and the Institute of Science and Industry, which preceded it. Just now, the Fisher Library of the University of Sydney is desirous of having a copy of Pulletin No. 6—"Power Alcohol: Proposals for its Production and Utilisation in Australia," issued in 1918.

The publications which are particularly required are the following:—Bulletin Nos. 1 (Cattle Tick), 2 (Worm Nodules), 3 (Alunite), 4 (Bendigo Goldfield, Part i), 5 (Wheat Storage Problems), 6 (Power Alcohol), 7 (Agricultural Research), 8 (Bendigo Goldfield, Part ii), 9 (Ferro-Alloys), 14 (Posidonia Fibre), 18 (Wheats), 20 (Power Alcohol), 21 (White Ants), 26 (Wheats). Readers having these copies to spare would render a service if they would return same to the C.S.I.R., 314 Albert-street, East Melbourne, Vic.

### ORCHARD MANURING.

Organic manures are best for rejuvenating wornout soils. Animal manures: sheep, horse, cow, poultry, etc., abound in bacterial life, thus liberating plant foods in the soil. Orchards' soil are further benefited by ploughing in green manures. Chemical manures should be further added, according to requirements.

Prosperity does bewitch men, seeming clear; As seas do laugh, show white, when rocks are near.

# New South Wales.

The Batlow District.

Export: Pruning: Spraying.

Mr. H. V. Smith, general manager, Batlow Packing House and Cool Stores' Rural Co-operative Society Ltd., advises as follows under date June 21.

Export, 1933.—The quantity exported from N.S.W. this season was very much greater than in any past year, and as far as early shipments are concerned results were reasonably satisfactory. The early April shipments, however, have met a falling market, and in common no doub with growers in other States, returns will be decidedly unsatisfactory. It is evident that some drastic alterations will need to be made with regard to the manner in which export trade from Australia generally is conducted, as growers cannot carry on under the present conditions. As far as Batlow is concerned, between 60,000 and 70,000 bushels of Apples and Pears were shipped.

In May the Sydney market firmed considerably for red Apples, and later for Pears, this of course, being due to the quantities that have been exported.

Granny Smith Apples are now being sized and graded and put into oiled wraps for storage—the Batlow production this season being somewhere between 40,000 and 50,000 cases.

Pruning has actively commenced, and some growers have been giving an early winter ploughing—this being a departure from the usual practice in this district—it is thought, however, that we may be faced with a dry summer next season, and growers are trying to conserve as much moisture as possible.

Spraying.—Many growers are putting on oil sprays this winter, which is unusual. This activity is due to the warnings that have been given by the Department of Agriculture regarding the San Jose Scale. Very little scale is, however, to be found in this district.

The cool stores, which are now 60,000 cases capacity, are full, and the fruit, which is being taken out now, is being replaced with the Granny Smiths.

The following notes taken from the latest seasonal report of the N.S.W. Department of Agriculture, are of interesting.

Citrus.—The marketing of Navels from many coastal districts is heavy. Generally, Valencias are filling out satisfactorily: In the Kurrajong district fruit coloring: fair quantities of Common Oranges, mostly Silettas, being harvested. Many growers are marketing Mandarins. Good to heavy crops are fairly general.

Bananas.—Cool conditions have had a retarding effect on growth of plants and maturing fruit throughout plantations generally. Fairly light consignments in June. Large-sized fruit scarce in the Tweed district, the predominating sizes being sixes and sevens. During May shipments by steamer from the Lismore district exceeded 6,000 cases, consignment by rail approx. 400 cases.

Pineapples.—Young crops said to be promising in the Lismore district and the September-October harvest should be heavy. New areas are being prepared and a material increase in plantings is expected during the next twelve months.

Passionfruit.—Light production on both North and South Coast.

MURRUMBIDGEE IRRIGATION AREAS, N.S.W.

Pasture Seeds for Orchards-Crown Gall in Peach Stocks.

At the recent Conference of Agricultural Officers of the Murrumbidgee Irrigation Areas at Leeton, among the different subjects discussed were many matters of great interest.

Regarding permanent pastures, the opinion was expressed that orchardists were not making full use of permanent pastures for horse feed, and it would be of great advantage to lay down pastures on horse feed paddocks on orchard blocks. The value of Paspalum was recognised, but attention was drawn to the absolute necessity for continually working it to control the growth and prevent it from getting rank.

Tick Beans and Field Peas for seed purposes are being

Tick Beans and Field Peas for seed purposes are being experimented with by the Dept. of Agriculture and the Commonwealth Research Station at Griffith, to develop suitable methods of growing these for seed purposes on the Irrigation Areas. It is hoped by variation in spacing and by sowing at various times to gain further information as to best method and time for sowing.

Crown Gall in Peach Stocks.—Mr. C. Braithwaite, District Inspector for the Irrigation Commission, stressed the trouble arising from crown gall in Peach stocks, and suggested when Field Officers came across Peach trees growing from stock which showed apparent immunity to crown gall, should endeavor to secure some of the stock for testing. The Biologist of the Dept, of Agriculture was already testing the Indian Blood Cling Peach for immunity to crown gall prior to further supplies being propagated and distributed amongst growers.

### BANANA CULTURE IN N.S.W.

### Bunchy Top Again.

Owing to the report recently that bunchy top was spreading rapidly in the Banana areas of N.S.W. and Queensland, an examination was made by the Director of Fruit Culture, N.S.W. (Mr. G. C. Savage), and the Chief Inspector of the Queensland Banana Industry Protection Board (Mr. W. J. Ross). The localities concerned bordered on the two States and action is being taken by the officers of both States to have the position remedied with the least possible delay. It is also expected that more inspectors will be appointed in these districts. Mr. Savage said that it is necessary to remind growers of their responsibility in combating bunchy top and the beetle borer. The Government was determined to see that the regulations were carried out, and where breaches occur, growers will be prosecuted. Growers should be conversant with the method of destroying corms which in many instances, is not being satisfactorily carried out. The corms should be sliced into sections not exceeding one inch in thickness. Mr. Savage said that it was not obligatory on the part of the Department to issue notice to a grower to clean his plantation. The onus was on the Prosecutions would be launched immediately, and if circumstances warranted it, a summons would be issued without warning to the offending grower. With the sum made available by the Banana Growers' Federation, it is hoped that two additional inspectors will be appointed.

### SPRAYING FOR BLACK SPOT.

A LTHOUGH THE PAST SUMMER was a very dry one, black spot on Apples and Pears was more prevalent in southern N.S.W. than for many years, if ever before.

A summary of recommendations for spraying, issued by the N.S.W. Dept. of Agriculture, are as follows:—

Prune out and burn all dead and diseased wood.

Spray as follows:-

1. Bordeaux mixture (6=4=40) at "spur-burst" stage. 2. Lime-sulphur (1 in 14), 26 deg. Baumé, at "pink"

stage.

3. Lime-sulphur (1 in 35), 26 deg Baumé, at "calyx" stage, when the petals are falling, combined with arsenate of lead for codlin moth.

4. Lime-sulphur (1 in 35), 26 deg. Baumé, combined with the first, second, and third "cover" sprays of

arsenate of lead, if necessary.

Lime-sulphur, when combined with arsenate of lead is liable to leave a deposit on the fruit and leaves, which depreciates the market value of the former and appears to have a detrimental effect upon the tree through its action upon the latter. This objection may be overcome by the use of calcium caseinate, used in the proportion of 1 lb. of calcium caseinate to 80 gallons of spray. Calcium caseinate should be mixed by gradually blending it with small quantities of water until it is brought to the consistency of cream. This procedure will obviate difficulty in mixing and formation of lumps. When combining the solutions, the arsenate of lead should first be placed in the vat, then the calcium caseinate and finally the lime-sulphur. It is advisable to use the spray as soon as possible after it is prepared, and care should be taken to see that it is kept thoroughly agitated when being applied.

Maintain the vigor of the trees, by the systematic use

of fertilisers if necessary.

### PASSIONFRUIT IN N.S.W.

### Crops Reduced by Fungoid Disease.

It is regrettable that the development of disease has reduced the production of Passionfruit in N.S.W. Twenty years ago, the average production of a vine was half a bushel, and to-day it is only quarter of a bushel. According to the Government Statistician at present 250,000 vines are in bearing in N.S.W., or twice as many as there were twenty years ago, and yet the production is about

the same, namely, 50,000 bushels.

The Biologist of the Dept. of Agriculture says that the industry has not expanded. Lack of attention to curtail details may partly explain the bad yields, but it is considered the present situation is caused through two diseases, namely brown spot and woodiness. The former has played havoc in coastal plantations. Experiments in Queensland some years back showed that this disease can be kept under control. Returns from vines that had been treated were sixteen times greater than from those untreated. The essential features are pruning, the removal of diseased laterals in late winter or spring, and the thorough application of Bordeaux mixture (6-4-50) at monthly intervals during the warmer months in order to maintain a protective covering of the fungicide on the vines. If vines are pruned in the early summer for the winter crop, the spray should be applied immediately after pruning, and should be repeated at monthly intervals until January or February, then at two monthly intervals during the cooler months.

With regard to woodiness, only healthy seedlings should be planted and should not be put near an older diseased area. Weeds must be kept down and any virus infested plants should be destroyed. Any young vines showing symptoms of the disease must be immediately destroyed.

Pull off excess laterals, if possible when pruning, and if a knife be used it must be put into a disinfectant solution before pruning the next vine. When woodiness develops in older crops, concentrate on the summer crop and no pruning for the winter crop.

### A N.S.W. NURSERY.

One of the largest nurseries of N.S.W. is that of L. P. Rosen and Son, at Carlingford, in the Pennant Hills district. This nursery is 52 acres in extent, and is a model of neatness and utility. The present manager, Mr. J. W. E. Larsen, is an expert with 25 years' experience in the art of producing high quality trees and plants. Citrus occupies a large portion of this nursery, where budding wood supplied by the Bud Selection Society of N.S.W. is worked on Lemon, Sweet Orange, Seville, and Trifoliata stocks to suit different soils. Many orders for citrus trees come from growers in the Murray Valley and a recent large order was from the Murrabit Packing Co., who are keen on bud selected stock. The Co-operative Bud Selection Society was formed under the aegis of the N.S.W. Dept. of Agriculture and consists of representative fruitgrowers and nurserymen for the purpose of making available for budding, selected buds from special trees of the best types. Buyers of bud selected citrus trees from the nurseries of L. P. Rosen and Son are issued a certificate as a guarantee that the trees sold to them are as specified.

Mr. Larsen is a prominent member of the Bud Selection Society, and has a large staff of assistants who are also expert nurserymen. At peak periods, upwards of twenty assistants are engaged at the Fernhill Nurseries, for Roses, as well as fruit are grown there. Peaches and Apples are grown in large quantities, and on a block adjoining the main nursery there are 10,000 young trees

of the Granny Smith variety.

The nursery is situated in delightful rural surroundings and visitors are always welcome. For those not travelling by car, the best way to reach the nursery from Sydney is to take train to Carlingford, or train to Epping and thence by motor bus to Carlingford Post Office.

### ROOT BORER IN N.S.W.

Root borer is responsible for extensive damage to Apple trees in the North Ryde, Carlingford, Baulkham Hills, and Camden districts. Many trees that showed no evidence of the borer two years ago, have been grubbed out, and young trees are showing definite evidence of the borer's presence.

### CHERRIES REPLACING PEACHES AND PLUMS.

In the Young district (N.S.W.) many growers intend removing Peach, Plum and Nectarine trees from their orchards, owing to unremunerative prices received for the fruit produced and to the cost of maintaining these trees in a healthy condition. It is likely that replacements will be made with Cherry trees.

During August, the full moon comes in on Sunday, 6th.

### PRUNING LEMON TREES.

XPERIMENTS were begun three years ago to improve locally-grown Lemons, by the N.S.W. Department of Agriculture. Mr. R. J. Benton, special instructor in citrus culture recently stated that with unpruned trees, after bearing for several years, the limbs grew haphazardly, frequently crossing each other. If the trees were bearing well, the upright limbs in the centre were found to be very numerous, and outside branches reached ground level. He considered that with a system of pruning, better results could be obtained and the production more profitable, and the fruit would be a better color. Lemon trees made their fruit mainly on the laterals and also on the terminals of fruiting twigs. The free development of laterals in the interior of the tree, when the best quality fruit was found, was mainly determined by the position of the limb and its accessibility to light.

He recommended a fairly open centre with the limbs sloping outwards as much as possible, in order to allow more sunlight to enter the middle of the tree. Then a denser growth of foliage and the production of new fruiting wood should be formed closer to the framework of the tree, the side branches and laterals being shortened as much as possible. With mature Lemon trees, such prun-ing would require further attention a few months later. This would be necessary with vigorous trees, as strong lateral growth would be readily forced which would need to be reduced in length, and if too thick, might need to be cut back altogether.

A conference of fruitgrowers and Departmental Fruit Instructors will be held at the Hawkesbury Agricultural College from July 5 to 7.

The first Oranges grown in Australia were grown by a man named Johnson, at Ryde, near Ermington. This fruit and vegetable growing district gradually extended to the Hills District (Pennant Hills, etc.), from whence a great deal of the stone and citrus fruits of N.S.W. are still supplied. Pennant Hills received its name from the fact that in the very early days of the Commonwealth, the goods and stores came by boat to Ermington, and upon their arrival a flag was hoisted which was the signal to the people of the Hills district to come and collect supplies, etc.

Scrub and Frost Damage.-In an article in the "Journal of the Council for Scientific and Industrial Research," Mr. E. S. West writes that since Mallee scrub has been cleared at Yenda, N.S.W., there has been less damage by frost. He points out that young citrus orchards were entirely wiped out for two years in succession before clearing, but since then two young citrus orchards have been established and withstood the hard winter of 1932.

### N.S.W. SHOW DATES, 1933.

Narrandera.—October 3, 4. Leeton.-October 10, 11.

The Empire Fruit Fleet.—Eight vessels with 400,000 packages of Apples and Pears from Australia, New Zealand and Tasmania arrived in the Port of London during the week ended May 19, 1933.

### CHERRY CULTURE.

### Varieties for Pollination.

Tests with Cherry pollination have been carried out at Orange, N.S.W., by Mrs. A. B. Wright and Messrs. E. E. Sampson and H. V. Howarth. Mr. F. T. Bowman, Fruit Instructor of the N.S.W. Department of Agriculture, in advising the results of these tests recently, said that Early Lyons, the standard early variety, was self-sterile and easily pollinated by the varieties Early Rivers, Burgdorff, Early Purple Gean, and Eagle. From the commercial aspect Burgdorff and Early Rivers were considered the most suitable varieties for inter-pollinating Lyons in the early Cherry districts, such as Camden and Young, whilst Eagle was the best variety in later districts, as Orange and Uralla. Early Lyons was also satisfactorily pollinised by Florence, Napoleon, Boppard, Bedford and Bleeding Heart. In practice, however, these were of limited use, because they did not synchronise with Early Lyons in their blossoming periods as well as the four varieties first mentioned.

St. Margaret was found to be a poor polliniser. This was of interest because in some districts and in some years, St. Margaret would overlap the bloom of Early Lyons by a week, and this might be thought to be affecting cross-pollination, whereas it was of little value. St. Margaret was also self-sterile and unfruitful with Noble and Republican as pollinisers. It was satisfactorily pol-linised by the varieties Common White or Late Mottled Bigarreau, Bleeding Heart, and Eagle. St. Margaret was poorly pollinised by Early Lyons and indifferently so by Florence, Bing and Black Eagle. At least some strains of Napoleon were also indifferent pollinisers. Napoleon had shown some degree of self-fertility and was noted for its good cropping capacity. It was highly cross-fertile with Eagle, Florence, Margaret and Noble. Florence was found to be self-sterile, although further testing was desirable to substantiate this. It appeared to be satisfactorily pollinated by Napoleon.

Mr. Bowman is of opinion that growers might now lay out new plantations with selected varieties which had been found to be suitable for cross-pollination purposes. The information should also be valuable to orchardists having Cherry varieties planted in solid blocks which on account of inadequate cross-pollination were not cropping satisfactorily. Where plantations were already established and had inadequate cross-pollination facilities, suitable varieties as outlined might be introduced by grafting later in the season.

### "NEW AUSTRALIAN FAIRY TALES."

### Charming Book for Children.

The "New Australian Fairy Tales" is an excellent book for children: interesting stories featuring Australian native birds and animals are featured. Colored illustrations are included, the stories including "Koala and the Mayor of Mt. Dandenong," "Bun Yip and the Haunted Hills," "The Fox and Jenny Wren's Eggs," "Kanga and Kooka," "Freddie Wander Lost in the Bush," "The Curious Fox," and the "Farm Horses' Club." This book is bound in stiff covers and may be obtained at 1/- per copy (1/2 posted) from the Horticultural Press Pty. Ltd., Box 1944, G.P.O., Melbourne.

### BROWN ROT IN APRICOTS.

TN reply to a recent question on brown rot in Apricots, Mr. Geo. Quinn (Chief Horticultural Instructor, S.A.) stated that there was some doubt as to whether the "brown rot" referred to was the disease due to one of the species of the fungus Sclerotinia (Monilia) or to the brown decay which developed near the stone in some of the ripening Apricot fruits. According to Dr. Wormald, of Britain, and other writers, the brown rot fungi consisted of several species of Sclerotinia. The principal one in Britain was distinct from that so prevalent in America, and to a lesser extent in Australia. The species found in Victoria, and to a much lesser extent in this State, was said to be Sclerotinia fructicola of winter. It was reported by McAlpine as Sclerotinia fructigena many years ago as being found in this State, but it was not recorded again here until found last year at Payneham, from whence it was brought in by Mr. N. R. Quinn.

The first appearance of the disease was as a tiny brown speck that rapidly developed into a large spot, beneath which the flesh was deeply invaded. If heat and moisture were the chief means of distribution of the spores. The harvesting of fruit also spread it by means of the pickers' hands. The mummified fruits were a serious source of spreading the disease, either from the tree or soil.

The control of the disease was best obtained by the use of fungicides. In the U.S.A., good results had been achieved by spraying about four weeks after the petals fell, using lime sulphur, and again about a month before ripening time. Dusting with finely ground sulphur was also used, as it could be safely applied nearer to the ripening time of the fruit. The Americans, according to the most recent Technical Bulletin No. 328, by Roberts & Dunegan, on "Peach Brown Rot," used a self-boiled lime sulphur made by blending 8 lbs. of sulphur with 8 lbs. of quick lime, and adding water to set up action. which, when completed was increased to make 50-galls. of spray. This fungus attacked Plums of all sort very freely, as well as Peaches and Apricots, and had been recorded on Apples, Cherries, Pears, Rose, Blackcap Berry (Rubus occidentalis), and Blackberries. disease has been fully discussed in the "Journal of Agriculture of Victoria" during recent years .- "S. Aust. Journal of Agric."

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conditions were available the rot development rapidly increased. It was a solid type of rot, not soft and watery as with Penicillium (blue mould) injuries. Spore cushions appear on the surface of the rotted area frequently within 24 hours. These turned into ashen grey masses of Conidia, which were often grouped in concentric rings over the rotten spot. The fruits often adhered to the trees, drying slowly and shrivelling into a mummy. The blossoms were attacked and turned brown and died. These also adhered to the twigs often through a season. They were covered with masses of Conidia, which disappeared in dry weather but recur again after rains. Twig cankers sometimes arose from the spurs or twigs becoming affected. The leaves adjacent often became affected and brown, but these were not deemed so important. The affected leaves of the Peach took on a water-soaked appearance and were often covered with conidial masses. Leaves blistered by curl leaf fungus were stated to be peculiarly susceptible.

The optimum temperature for growth of the fungus was between 70 deg. and 80 deg. Fahr. Temperatures over 90 deg, and dry atmospheres were distinctly unfavorable. It grew slowly at temperatures not much above 32 deg. Fahr. Birds and insects and the wind

### ARTIFICIAL MANURE SUBSIDY.

The attention of farmers is again drawn to the fact that the subsidy of 15/- per complete ton is payable only in respect of fertiliser used during the period 1/12/32 to 30/11/33. Therefore, in cases where fertiliser has been applied to the soil prior to 1/12/32, the subsidy is not payable.

Applicants for the subsidy are particularly asked to note that the declaration made by them on claims definitely states that the fertiliser has been used during the period 1/12/32 to 30/11/33, and if they complete claims and make the declarations thereon in respect of fertiliser used prior to 1/12/32, they render themselves liable to the penalties provided in the Commonwealth Financial Relief Act 1932.

Fruit for Dutch East Indies.—The Secretary of the S. Aust. Fruitgrowers and Market Gardeners' Association, Mr. W. J. Kimber, advises having been notified that the Dutch East India authorities will refuse to admit fruit unless accompanied by a certificate of freedom from fruit fly.



In our well equipped Laboratories a staff of highly-trained chemists exercise strict analytical control over every batch of "Aero" brand Arsenate of Lead.

The most exacting tests are employed to ensure uniform fineness and lightness in texture, the highest percentage of arsenic, and the lowest percentage of soluble arsenic.

This expert supervision and close analytical control assure the Orchardist that, in "Aero" brand Arsenate of Lead, he is getting the finest quality product it is possible for chemical science and skill to make.



Keep your Orchard Codlin free by spraying your Apples and Pears with this superlative quality Product. Awarded Gold Medal, All-Australian Exhibition,

# BICKFORD'S "Aero" Brand ARSENATE OF LEAD By every Test Bickford's "AERO" Brand is Best

INTERSTATE AGENTS:

RAMSAY & TREGANOWAN LTD.
469-477 Latrobe Street, Melbourne.
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FELTON, GRIMWADE & BICKFORD
LTD.
207 Murray Street, Perth.

NEW SOUTH WALES— BUZACOTT & CO., LTD., 7-11 Market Street, Sydney.

QUEENSLAND—
BUZACOTT (QUEENSLAND) LTD.
413 Adelaide Street, Brisbane.

# A Corner of our City Laboratories---

where daily tests check each batch of Arsenate before it is passed for filter pressing and subsequent drying.

Our constant aim is—Quality. Knowing how dependent the orchardist is upon the Chemist for his protection against Codlin Moth, our constant endeavour is to market an Arsenate of Lead of the highest possible quality at a competitive price. We have spared nothing to provide the best possible equipment to manufacture what we firmly believe to be the best Arsenate of Lead offering to-day.



Apart from our own opinion, the official South Australian Government analyses of "Aero" brand Arsenate of Lead reveal it to be a product of great superiority. For the benefit of our readers we reprint a representative official analysis below.

Moisture	0.15	per cent.
Arsenic Oxide	31.7	per cent.
Lead Oxide	60.2	per cent.
Water Soluble Arsenic	0.14	per cent.
Lead remaining in suspension—		
After standing 5 minutes		
After standing 15 minutes	30.6	per cent.

This analysis shows "Aero" brand to be the best all-round Arsenate of Lead Powder on the market. Although of such high quality, "Aero" brand is no dearer than inferior arsenates.



# KEORD & SONS I TO

WHOLESALE MANUFACTURING CHEMISTS AND DRUGGISTS, 42, 44, 46, CURRIE STREET, ADELAIDE.

Laboratories and Works:

90-100 WAYMOUTH STREET, ADELAIDE; and PORT ROAD, WEST CROYDON.



In response to many requests, the "Fruit World" is now reserving this special Fruit Cool Storage Section to deal with the everyday problems of the cool store manager and refrigerating engineer, from whom enquiries are invited. Practical cool storage notes of interest are also invited from readers. Address correspondence to Practical Refrigeration Department, "The Fruit World," Box 1944, G.P.O., Melbourne, or 439 Kentstreet, Sydney, N.S.W. 

### RED HILL COOL STORES.

THE RED HILL Co-operative Store has a capacity of 30,000 cases. This new store, erected in 1929, re placed the original building which was destroyed by fire. The care and economy exercised in re-building, enabled the Society to provide a plant which was practically new throughout, and 7,000 cases extra capacity, without spending anything except the money received on settlement of the insurance claim.

The Committee of the Red Hill Co-op. Cool Stores is as follows:-Mr. G. W. Brown (Chairman), Messrs. Reg. A. Sheehan, G. M. Wilson, R. E. F. Woodward, G. Laurissen; Secretary, T. E. Butler; engineer, H. J. Hilton.

Principle.—Dry air circulation, with somewhat unusual method under which the air is carried in ducts running over the centre of the chambers in the gable of the roof; and distributed by subsidiary perforated ducts placed in the angle formed by the wall and ceiling of the chambers. This is found to be very effective.

Plant.—Twenty-five ton Werner Compressor, driven by a 57 h.p. Hornsby Crude Oil Engine. By a somewhat unusual departure the counter-shaft to drive water and brine pumps and fan. dynamo, etc., is on ground level, ball bearings being used throughout.

The Society has its own electric light plant with large capacity storage battery.

The brine tank, instead of being placed immediately beneath the coils, is in a separate chamber built below the battery room, the brine circulating through 6in. lead

The store is equipped with long distance thermometers. A platform 8 ft. wide and approximately 400 ft. long right round the whole of the buildings provides excellent access and stacking space; and as a very considerable proportion of this length is parallel with the railway siding the loading of railway trucks is facilitated.

Packing Facilities .- The well-equipped packing shed, 40 x 80, adjoining the cool store premises is two storey. advantage having been taken of the fall of the land to construct a basement with a concrete floor.

### PRESERVING REFRIGERATOR COILS.

T THE RECENT CONFERENCE of the Orchardists and Fruit Cool Stores' Association of Victoria, Mr. R. Werner delivered an address dealing with the subject: "Which is the best method of preserving refrigerator coils?" He divided the subject into four sections: (1) the familiar air battery coils over which brine is running; (2) direct expansion coils; (3) condenser coils over which water is running; (4) ice tank coils submerged in brine. (The latter were seldom found in fruit cool stores.)

Regarding the care of (1) ordinary battery coils, little information was available. The practice of pulling out battery coils and painting them was unpopular, the usual thing being a complete renewal after 12 to 20 years. Most causes of decay in pipes were due to changes in conditions, i.e., from wet to dry. By running brine over the coils several times a week (every day, if possible, in the off season), the continual wet condition would get most life out of the coils at minimum cost. Another method was to add lime or silicate of soda to render the brine alkaline. This was prevention rather than preservation. Some engineers stated that because of the acid in fruit, battery coils in Apple stores go out more quickly than where meat is handled. This pointed to the prevention method rather than painting. While no records existed of experience with silicate of soda in battery coils, the "Kurust" people, of Sydney, who had a special prepara-tion for use in calcium brine, claimed that their liquid would prevent all rust, scale and sludge from forming if "Kurust" were used in the proportion of 1 per cent. to commence and increased later to 2 per cent. Calcium brine should be neutralised with cream of lime before using the "Kurust" (see separate note at end). It was claimed this material would not evaporate during concentration of the brine, was odorless, and kept the concentration clean. Either of the methods suggested was worth

2. Direct expansion coils (generally found on walls and ceilings of cool chambers). These coils being free from brine, did not deteriorate so much as the battery coils, and frequently had a protecting coat of frost, so that the cycle of wet and dry was not frequent. general method was to scrape and paint the coils while in position every year or so. Paints, however, were not always satisfactory and some leading refrigerator men now favored the wiping of coils with old compressor oil or any thin waste oil every time they looked as if they needed it. Aluminium paint should be worth a trial.

3. Condenser Coils.-Here we have the detrimental effect of various waters in addition to the wet and dry cycle, also dust accumulating and weed growth, but no frost. Various paints had been tried with varying success and treatment with water had also given good results. By using water from a river or the sea, condenser maintenance costs were usually high. In some plants where water was bad, no painting was attempted—simply replacing the coils every 8 to 10 years. The silicate of soda treatment for water was not expensive. When water was constantly recirculated, it created a protective film over the pipe if new, and what incrustation was formed would be softened and easily removed. This treatment in no way affected the efficiency of the coils. Another method was treatment by various oils, a certain brand of fish oil was claimed to be very good. Also an American treatment called "No-oxid" which was a tenacious semi-grease like substance wiped on to the coils with a rag or made hot and painted on with a brush.

Close proximity to the sea affected the life of condenser coils; 5 to 7 years would be their life if un-

# The Puzzle of Production

is Solved

by Efficient Cultivation

This is Your Most Important Operation This Winter

IT IS BETTER TO NEGLECT OTHER OPERATIONS THAN TO NEGLECT CULTIVATION. "HARVEY" IMPLEMENTS OFFER THE MOST RELIABLE METHOD OF KEEPING YOUR LAND THOROUGHLY CULTIVATED.



Are Your Implements the Latest and Best Available for Your Cultivation Job

F your implements are not of the best then consult the "HARVEY" Organisation. For many years Mr. Harvey PERSONALLY has made a Special Study of the Requirements of Orchardists and Vignerons. To-day these Implements stand Unchallengeable

for Quality and Value.

**EVERYTHING...** 

The Orchardist, Tobacco Grower. and Nurseryman.

DISC & SPRING TOOTH CULTIVATORS (HORSE & TRACTOR DRAWN), SINGLE & DOUBLE FURROW DISC & MOULDBOARD PLOWS, MOLE DRAINERS, ALL CLASSES OF HORSE & :: TRACTOR IMPLEMENTS, TOBACCO PLANTERS & CULTIVATORS, FRUIT GRADERS,

Fruit Graders - Citrus Processing Equipment - Dehydrators

D. HARVEY Orchard Implement Manufacturer
Box Hill - Melbourne - Australia

attended. With condensers very much depended on the water. By using pure rain water, a life of 25 years was easily possible. This pointed strongly to the prevention of rust by water treatment rather than by painting.

4. Ice and Brine Tank Coils.—In brine, either salt or calcium made from very good soft water, the totally submerged soils would last many years without even losing their original coat of paint, but the top pipes, subject to rise and fall in brine level, should receive attention. Lower the brine level, scrape and clean, and if the pipe will dry, paint heavily, but if they will not dry, penetrating oil treatment should be given. The "Kurust" Company claimed success with their liquid for brine tanks. With cold water tanks, as in butter factories, where pure water is used, every part of steel in the water service should be galvanised.

Cream of Lime is a clear liquid, also known as milk of lime and lime water. Used for neutralising "acid" brines and making brine alkaline. This liquid is made by the simple process of placing a quantity of unslaked lime in an old drum and pouring in enough water to thoroughly slack it off, stirring all the time. When this mixture is settled the clear liquid on top is the cream of lime. A cruder way to add lime to brine is to simply hang a bag of unslacked lime in the brine and let it dissolve until sufficient is added. This, however, is a lazy man's way and may get powdered lime into the brine.

Method of Testing the Brine for Acidity.—This is done by taking a sample of brine in a clear glass and adding a few drops of Methyl Orange, a chemical which will immediately show a red color if the brine is acid, in which case it must be neutralised and make slightly alkaline by the addition of cream of lime, which must be added gradually until another test made by adding a few drops of Phenolphalein turns the solution a faint purple. These chemicals are not expensive and may be obtained from most chemists. They give a very sensitive test.

### PRE-COOLING ORANGES.

At Riverside, California, a pre-cooling plant has been erected having a capacity of 231,000 boxes of citrus fruit at a time.

### FRUIT IN COOL STORES.

The State Marketing Bureau, N.S.W., reports that on May 27, 94,085 cases of Apples and 37,147 cases Pears were held in cool storage in that State. Advices from South Australia are that 159,798 cases of Apples and 21,993 cases of Pears were in cool store in that State at April 30.

Considerable quantities are held in the cool stores throughout Victoria.

### COOL STORED APPLES.

Generally speaking, Apples are holding up well in cold store. In some districts, however, Jonathans have suffered from scald. It was thought that this might have been due (apart from cultural factors) to the holding of the temperatures at 30 deg. to 32 deg., which temperatures were more suited to the Pears in the stores. The approved temperatures for storing Apples appears to be 32 deg. to 34 deg.

Time wasted is existence; used, is life.

### WESTERN AUSTRALIA.

Bridgetown.—At the May meeting of the Bridgetown Fruitgrowers' Association, Mr. H. Lake presided. Much discussion took place regarding the seasoning and shrinkage of fruit cases. Mr. R. Scott produced two half dumps which had been set out for seasoning, one of which was fully an inch shorter than the other. One had been cut from a matured tree and the other from a young tree. During the season he had thrown out dozens of case ends because they were undersized or useless, and he considered the matter should be brought before the manager of the mill. Mr. Ozanne said the setting out of the ends was not always safe. They should be stacked tightly together and kept well covered. A complaint was received regarding growers who sent Apples to the cider factory in bags and had same returned to Bridgetown for further use. It was decided to get a ruling from Mr. Wickens on the matter.

### WESTERN AUSTRALIAN APPLE GROWERS.

### Success at Imperial Fruit Show.

Mr. G. Simpson, of Kurragulen Orchard, Western Australia, won for the second time last year at the Imperial Fruit Show, London, the silver challenge cup for the best exhibit of four cases of Apples from the Southern Hemisphere. Mr. Simpson then said he was determined to win the cup again this year. He has now achieved his ambition for at the show held on June 7 and 8 he won first and third prizes for Granny Smiths, first for Dunn's and second for Doherty's. Orchardists in Australia, New Zealand and South Africa competed.

The Illawarra Orchard Coy., which is a neighbor of Mr. Simpson, took first prize for Doherty's and Mr. E. G. Hall, Bridgetown, W.A., secured second for Dunn's and Jonathans. Mr. Simpson is thus entitled to hold the cup for all time. The West Australian orchardists are to be congratuated on their success.

### WESTERN AUSTRALIA.

No Codlin Moth, Black Spot or Brown Rot.

In reply to a question regarding control measures for brown rot, the Supt. of Horticulture, Mr. G. W. Wickens, advises that this disease is unknown in W.A.

The Western State is also free from codlin moth and black spot.



GERRARD AUTOMATIC TACKER and TACK STRIP for fastening labels to cases, INEXPENSIVE—FAST—EFFICIENT Why waste time with a hammer and tacks?

Gerrard Wire Tying Machines Co. Pty. Ltd.
119-125 Hawke St., West Melb., C.S.

EYONEY, BRISBANE, ADELAIDE, PERTH, HOBART.

DETAILED PACKING CHARTS AND GENERAL PRINT PACKING INFORMATION ARE SUPPLIED FREE ON APPLICATION. "GERRARD SERVICE."

# Victorian News and Notes.

ADVERTISING APPLES IN VICTORIA.

Plans for Big Publicity Drive.

ECAUSE OF THE LARGE STOCKS of Apples in Victoria and the low prices ruling, meetings of growers have been held to devise an Advertising Campaign to increase the consumption of the fruit.

The "Herald" newspaper organisation, through its representative—Mr. J. K. Heughan—convened meetings and proposed that funds be raised by donations of cash or cases of fruit from growers. The "Herald" agreed to provide services to the extent of £100 in approaching growers throughout the State in the initial organising of the campaign. It is made perfectly clear, however, that the funds when raised would be entirely at the disposal 'of the Growers' Committee.

A representative meeting of fruitgrowers was held at the "Herald" office on June 12, Mr. J. H. Lang, Harcourt, presiding. It was resolved to go ahead with the programme for raising the funds. A provisional committee was appointed as follows:—Messrs. J. H. Lang (Harcourt), W. H. Carne (Pakenham Upper), A. G. Campbell (Kilsyth), G. H. Sprague (Hastings), together with representatives to be appointed from the Orchardists and Cool Stores' Association, Victorian Fruit Marketing Association, and the Southern Fruitgrowers' Association, with power to add. Mr. R. E. Boardman was appointed Honorary Secretary.

It is proposed that the advertising programme be along educational lines-describing the food and health values of Apples; according as funds are available, colored streamers and posters will be made available at fruit shops. It is proposed to offer prizes for the best decorated fruit shop in the Melbourne suburbs. Articles from the medical profession will be published, describing the virtues of Apples; wireless talks on this subject will also be arranged.

Growers are urged to stand right behind this valuable campaign. The opportunity is a unique one. The good-will of the press and the public is assured. By growers each donating one or two cases of Apples sufficient money will be raised to conduct such propaganda as will substantially assist in disposing of the fruit's large crop and in doing so will lift the prices.

Furthermore, a long-sighted view needs to be taken. The present effort is only a commencement, and the foundation can be securely laid for continued efforts along these lines in the future. Advertising is a proved force. Growers who ship abroad contribute to advertising in Great Britain. Here is a chance for advertising in Australia. For quite a modest sum a vast amount of educational publicity can be secured. Fruitgrowers deserve well of the community and it is pleasing to notice the voluntary assistance now offering provided a campaign be conducted on organised lines.

# The Enemy Within Your Gates

LAUNCH YOUR OFFENSIVE THIS SEASON AGAINST YOUR COMMON ENEMY—INSECT PESTS AND FUNGUS DISEASES IN THE ORCHARD—WITH THE AID OF A

"Buzacott" High Pressure Spray Pump

THE FOLLOWING CHEAP AND STURDY OUTFITS ARE NOTED FOR THEIR EFFICIENCY:---



Fig. 450.—TOTALLY ENCLOSED TWIN-CYLINDER PUMP.

All working parts totally enclosed and auto-matically lubricated. Any pressure up to 850 lbs. per square inch. Cylinders Porcelain Lined. PRICE, 246/10/-.

Fig. 513.—BUZACOTT HAND SPRAYER
The most powerful Hand Pump made,
A Compensating Spring relieves the
operator of one-third of the load, making
extremely high pressure possible with
two lines of Hose. Porcelain-lined
two lines of Hose. Porcelain-lined
Cylinders Porcelain Lined.
Chamber, Pasent Packing—no Stuffing
ECE, \$486/10/-.

PRICES ARE FREE OF SALES TAX AND PRIMAGE DUTY—FO.R., Fo.B. CAPITAL CITIES.

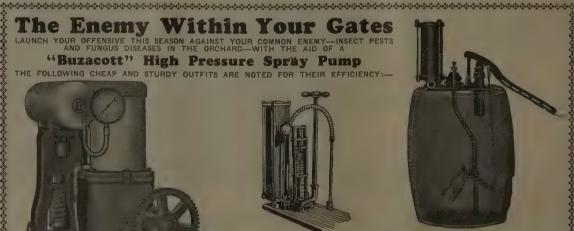


Fig. 502.-BUZACOTT BARREL SPRAYER.

All working parts above the Barrel, High pressure with ordinary effort. A powerful Hand Pump for use with one or two lines of Hose. Fitted with Rosebery Patent Combination Suction and Discharge Ball Valves and Reversible Seats. Large Air Chamber and Automatic twin paddle Agitator, PRICE, 28/10/-.

FOR GROWERS REQUIRING A PORTABLE OUTFIT THE "BUZACOTT" RANGE BIG 4 ORCHARD SPRAYERS IS SPECIALLY RECOMMENDED.

Send for Illustrated Catalogue Free on Application.

DON'T DELAY, POST TO-DAY.

CAMERON, SUTHERLAND & SEWARD Ptv. Ltd.

MR. RIVERSIDE AVENUE, SOUTH MELBOURNE
ADDRESS TASMANIAN AGENT:—R. N. JACKSON, Cr. Collins Street and Market Place, Hobart.

### FRUIT CROPS IN VICTORIA.

THE LATEST SEASONAL REPORT regarding fruit conditions in Victoria, issued by the Department of Agriculture, is as follows:—

Deciduous Fruit.-Large stocks of Apples are held in

the cool stores.

Notwithstanding the record crop, trees everywhere are showing very good bud growth for the next year's crop.

One interesting feature in fruit production is the numerous enquiries that are being made in regard to future plantings. This is encouraging, as it shows that growers are still confident in the industry, when they, in these times, seek to extend their plantings.

Up to June 9, 1,411,410 cases of Apples, 372,249 pkgs. Pears, and 3,624 pkgs. Plums had been exported from Victoria to the United Kingdom and Continent during the

present season.

Viticulture.—The deep winter ploughing so essential in vineyards can now be pushed forward. Its early completion would be well advised so as to avoid risk of undesirable delay if the winter should prove a wet one.

The high quality of the new wines is a notable feature. 1933 is essentially a "vintage year." The grapes came in, in excellent condition, and fermentation temperatures

ere ideal.

In the dried grape districts opportune rains have also fallen which will greatly help the tick beans, sown for green manure. Here the vintage has been a splendid one harvested under excellent conditions. The Sultana pack constitutes a record, the uniformly high grade of which will materially help marketing under circumstances which

Citrus.—The Orange and Grapefruit crops are as heavy as was previously estimated, and the sugar content is increasing and making the fruit more palatable.

The dry autumn has been responsible for a large per-

centage of splitting of the fruit.

No outbreaks of Anthracnose or Septoria Spotting have been observed to date, but with the commencement of frost and wet conditions growers should undertake preventive measures in the form of Bordeaux sprays at a strength of 3.3.50.

While Apple growers may hold differing opinions regarding various methods of organisation, there is one subject on which all are agreed, namely, the necessity for adequately developing the home market by the increased consumption of fruit with the consequent lifting of the prices. As a matter of fact, by rallying to this campaign growers will gain benefit many times in excess of their contributions

You fertilise the ground to increase crops: Now fertilise your markets by publicity.

Gorae (near Portland), 1/6/33.—The fruit season just ended here has been very quiet, export consisting of only a few thousand cases, and these were mostly late varieties. However, the cool store is full, and these will be marketed as soon as the market firms. It is interesting to note that several of the new settlers on the recently opened forest reserves are making a start on their holdings. Amongst these is Mr. A. Dark, who has cleared 16 acres and planted four acres of trees last winter. Older settlers seem to be resting on their laurels, no extra planting going on with them this season.—E. W. Hedditch

Merbein.—The Merbein Dried Fruit Growers' Union, at their last monthly meeting presided over by Mr. J. G. Hyndman, submitted reports on the meeting of the Executive of the District Council of the A.D.F.A., and the deputation to the Minister of Water Supply regarding the condition of the irrigation channels in the Merbein settlement.

It was decided to hold the annual meeting on June 26, and the following members of the Committee retire by effluxion of time and are eligible for re-election:—Messrs. J. P. Power, J. C. Thompson, G. L. Hardie, J. A. Whitney, D. A. Walters, Mr. J. C. Thompson, however, it is understood, is not seeking re-election.

Muckleford.—Mr. L. P. Pietsch advises as follows:—The fruit crop in this district was the best for Apples for the last seven years, all being of good quality and size, while, on the other hand, all Pears were on the small side: the fruit was exceptionally free from codlin moth and other pests.

Pruning is now in full swing, the trees look exceedingly well. being well budded for next season, and have made good growth. Plums are especially well budded, as, owing to late frosts, the crop was light. There is still a fair amount of fruit in the district.

Taradale.—Mr. George Vince, of Taradale, has given up his orchard and has taken up beekeeping. Mr. Vince states that he has a claim or reef of pure white quartz crushed into four grades in his property.

### VICTORIAN SHOW DATES.

Melbourne "Royal" Show, September 21-30.

### THE WORLD'S BEST

# Lead Arsenate

PASTE - POWDER - COLLOIDAL

# "Lunevale"

Sole Manufacturers:

LUNEVALE PRODUCTS LTD., QUEENS MILL LANCASTER (England).

# WE SPRAY THE WORLD

Sole Representatives for Australia and New Zealand:

### BROWN & DUREAU LTD.

Melbourne, Sydney, Perth, Brisbane Wellington, Auckland, and Christchurch.

### SPRAY CART DEMONSTRATION IN UNIQUE SURROUNDINGS.

Under the auspices of the Victorian Tree Planters' Association, Messrs. Cameron, Sutherland and Seward Pty. Ltd. gave a unique display of the Buzacott Portable Orchard Sprayer at the field day at the Fitzroy Gardens on June 7. The engine and pump have been specially designed for high-pressure orchard work. The totally enclosed spray pump is a single acting, twin cylinder machine with the whole of the working parts of the pump totally enclosed and running in oil. The two cylinders are porcelain enamel lined and impervious to the action of the spray mixture. Another outstanding feature is the pressure regulator, which, in conjunction with the large cast-iron air chamber, not only maintains the spray mixture at a correct constant pressure, but immediately the nozzles are closed, it relieves the engine of all load, allowing it to run "light," thereby saving petrol, oil and wear and tear. The totally enclosed "Buzacott" vertical hopper cooled engine is also unique. This appears to be an extremely simple and compact power unit, and we are told by the agents that all the working parts are enclosed and the lubricating system, eliminates, pumps, grease-cups, and drip-feed oilers. The entire engine is lubricated by splash by a generous supply of oil held in the sump. Messrs. Cameron, Sutherland and Seward Pty. Ltd., Riversdale-avenue, South Melbourne, are the Victorian agents and will be pleased to forward full particulars of this outfit to any readers on application.

Badger Creek .- During the past season, it was noticeable that Jonathans, unless planted with very vigorous pollen bearers in close proximity, did not set well. Gravensteins planted row for row hardly bore any fruit at all. When planted next to Dunn's or Yates they bore a good crop. In some seasons the Jonathans set well, but last spring was cold and there were many wet days. Perhaps the bees and insects did not travel so well as in a normal year .-- A. J. Mullett.

Victorian Apples and Pears.—The shipments overseas of Apples and Pears from Victoria are practically double the previous record figures. Victoria is now the leading Pear export State. Most of the Pears come from Doncaster and district.

THE SHELL

Merbein, 20/6/33.-5,498 cases of Oranges, 235 cases of Lemons, 422 cases of Mandarins, and 35 cases of Grapefruit, were despatched from the Merbein railway station for the week ended June 17. Up to the same date, consignments have totalled 33,563 cases, made up of 28,902 cases of Oranges, 1,385 cases of Lemons, 2,419 cases Mandarins, and 857 cases of Grapefruit. This shows an increase of 4.774 cases for the same period last year.





### ADECO FRUIT CASE LID PRESS

costs so little but saves time and prevents damage.

For Standard and Dump Cases, 77/6 (F.O.B. Melbourne)

Gerrard Wire Tying Machines Co. Pty. Ltd. 119-125 Hawke St., West Melb., C.3. SYDNEY. BRISBANE, ADELAIDE, PERTH. HOBART

DETAILED PACKING CHARTS AND GENERAL FRUIT PACKING INFORMATION ARE SUPPLIED FREE ON APPLICATION. "GERRARD SERVICE."

Railway Department's Achievements.-We have recently received an illustrated booklet which has been published by the Victorian Railways Department, en-titled "A Decade of Progress by the Victorian Railways." It is most interesting and shows various sections of the Department at work, and also the improvements that have been made of late years to ensure better travelling, as well as facilities for helping the primary producer.

FULL

# did you see this clipping? Successful growers have found that the best way Export Pears to effect a thorough clean-up of San José Scale is to spray with Shell Redspray or Shellicide D.

July 1, 1933

### The Re-Working of Fruit Trees.

(By S. J. Bisdee, Bagdad, Tasmania.)

THERE ARE SEVERAL METHODS of re-working fruit trees in practice in Tasmania, but I, personally, have used the budding method only in recent years-the old method of cutting the tree down and grafting being now quite out of date.

The modus operandi in the system I use is as follows:-

During the pruning season the trees to be re-worked are stripped of all buds, spurs and laterals, and any surplus boughs are removed entirely. I find it advisable to space the boughs a fair width apart so that new boughs may be formed from the growth of the variety worked on to the tree. The stripped boughs are headed back sufficiently to stimulate strong growth from top to bottom. All large wounds are painted over with coal tar. In the spring the new growth will break away freely, and one must go round the trees several times during the growing period and rub out all shoots not wanted, spacing all retained shoots about 6 to 9 inches apart.

During the summer the trees should be sprayed with black-leaf 40-or some other efficient spray-to rid them of all woolly aphis.

In February, buds are inserted into the base of every lateral and into one growth retained to act as a leader.

Care should be taken to get the buds as close down to the main bough as possible so that the new variety comes away right against the bough, leaving no room for the old variety to send out growth and possibly get left in at subsequent prunings. I also find it wise to insert buds on to the upperpost side of the laterals, finding that the growth comes away more strongly than when placed in any other position. The inserted buds remain dormant till the following spring. At pruning time the laterals and leaders are cut back to the buds and the new variety come away freely. During the growing period, shoots of the old variety keep breaking out, and it is necessary to go round perhaps twice and rub these off. When the new growth becomes established, this will cease almost en-

In early-maturing varieties, I have obtained a bushel of fruit per tree two seasons after budding, and the crop will increase rapidly in succeeding years.

As mentioned previously, I have used no other method; but in my own mind the budding method is superior to both "plug" grafting, described in your June issue, and the bark grafting as described in your January issue, because I consider the union made in budding is far stronger than either of the other systems of grafting. It must be remembered that many of the new growths will have to form boughs in the future and carry heavy loads of fruit, and that these boughs and laterals will have to stand the strain of heavy winds when so loaded, so that it is wise to use the method giving greatest strength.

I admit that the grafting methods will probably yield a crop a year earlier than the budding, but I consider the greater strength outweighs that advantage, and I think one will get a greater percentage of "takes."

These new methods of re-working are a veritable godsend, as they, so far, have eliminated the dreaded polystictus disease, which was causing such havoc in trees grafted by the old methods; and they have the added advantage of bringing the tree back into bearing much more speedily.

EFFICIENT CONTROL OF CODLIN MOTH.

Four Oil Sprays Recommended.

OME INTERESTING EXPERIMENTS in the control of codlin moth have been carried out by the U.S. Bureau of Entomology at Yakima, one of the largest Apple growing centres in the State of Washington, on the U.S. Pacific Coast. The findings of the U.S. Bureau of Entomology, are of great interest to our readers in Australia and New Zealand.

Best results were obtained with the use of four oil sprays combined with a regular lead arsenate schedule (which, in this case, consisted of calyx and six cover applications). Comparative experiments with two oil sprays showed the advantages of having the two extra oilings. On a check plot, where no oil was used, the infestation was extremely severe.

The definite conclusion is that oil properly used is going to be the one insecticide that will hold down codlin infestation more than any other.

Two applications of oil are insufficient; three or four applications are much better. Other tests show definitely that more than four oil applications do not improve control very much, but that certain varieties are likely to injure the fruit. Oil is more valuable if used in some cover sprays than in others. It depends upon the number of eggs that happen to be present; therefore, only two applications might not do much good; three or four would be much more likely to strike a time when the eggs were numerous.

Oil may be added to the spray schedule in several ways. If no lime sulphur has been used, you may add oil to the first three or four cover sprays, and then not use any oil after that. This method will give good results. and the oil should not complicate the problem of washing the fruit, provided the applications of oil are all made for the first brood. If the dormant spray has been of lime-sulphur, or if you have sprayed for mildew, then it is advisable not to spray with oil until 60 days have elapsed after the lime-sulphur was put on. Under these conditions you cannot add oil to three or four sprays of lead arsenate without having probable difficulty in removing the latter. However, it has been found that cryolite is very effective when used with an

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oil emulsion, and this material may be substituted for lead arsenate in the late sprays, using three pounds to 100 gallons of water. Nicotine sulphate may also be used with the oil. Either method will give very good results.

It must be emphasised that the fruit must be thoroughly cleaned, preferably with an acid wash, before it is marketed if either lead arsenate or a fluorine compound has been used. The grower should plan his spray programme with this in mind, and he should avoid using a programme that makes effective residue removal extremely difficult or impossible.

### COLOMBIE APPLE EXPORT COMPETITION.

To encourage Victorian growers to improve their export pack and so obtain better prices for their fruit, Mr. H. G. Colombie and his principals overseas instituted a competition in 1928, and each year numerous growers compete. This is proof that the fruitgrowers are seized with the importance of improving their packs and presentation of Victorian fruit on overseas markets. judging is done by officers of the Department of Agriculture, supervised by Mr. J. M. Ward, Superintendent of Horticulture. Points are awarded for external appearance of case, timber, labelling or stencilling, wiring, wrappers, correct height, alignment, compactness, wrapping, uniformity of size, quality and freedom of disease and uniformity of color. The cup is held for twelve months by the growers having secured the highest average of points during the shipping season, and a replica of the cup becomes the absolute property of the yearly winner. This year the successful competitors were-Messrs. Ford Bros., Harcourt, 84 pts.; Harcourt Fruit Supply Society Ltd., 82 pts.; Bacchus Marsh Packing House, 78 pts.

Growers and packing sheds worthy of mention in order of merit were-W. Sheldon, Pakenham; Peninsula Co-op. Packing Co., Somerville; Hastings Co-op. Packing Co., Hastings; Diamond Creek Packing Co.; Robt. Webb, Narre Warren; Ray Bailey, Narre Warren Nth.: G. Tyler, Somerville; J. Cowan, Bacchus Marsh; W. E. Spurr, Bacchus Marsh.

### EX-VICTORIAN AGENT-GENERAL.

Comments on Fruit Export Not Appreciated.

Victorian fruitgrowers who export Apples are not pleased with published remarks by the ex-Agent-General, Sir Walter Leitch, regarding the quality of their Apples in U.K. The criticism is deemed to be too sweeping. The great bulk of the fruit exported is admittedly of good quality. The growers' organisations and inspectors are doing their best to keep up a high standard. Where cases of inferior fruit slip through it would be far better for the authorities to send the name of the grower in confidence to the inspection officers, or to the Growers' Association, so that the problem could be dealt with at its source. This would be far preferable to a general state. ment reflecting on the general quality of the fruit ex-

### "TOPPING" FRUIT.

Following on a visit by Inspector J. Tomlinson to a city fruit selling depot, George Brown and Rupert Ross were charged at the Bendigo City Court on June 26, with having sold Oranges not packed and graded as prescribed. A fine of 10/- each was imposed.

# THE PORT of HULL The Fruit Centre SERVING Great Britain for the North & Midlands & Continent for all Ports in Northern and Eastern Europe Daily sailings provide unrivalled situation for re-export of EMPIRE FRUIT Specially constructed REFRIGERATOR VANS carry FRUIT direct from STEAMER to inland destinations by EXPRESS TRAINS. RAPID HANDLING QUICK DESPATCH LOW CHARGES The London and North Eastern Railway A LARGE DOCK-OWNING RAILWAY Full information supplied by:— AUSTRALIA.—Burns, Philp & Co. Ltd., 7 Bridge-street, Sydney; 312 Collins-street, Melbourne, and Branches.

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NEW ZEALAND .- J. A. Redpath & Sons Ltd., 181 Cashel-street, Christchurch, and Branches.

### 1933 Citrus Season.

TRGENT REPRESENTATIONS have been made to the Federal Government to arrange with the New Zealand Government for at least a partial lifting of the embargo on the importation of citrus fruits from Australia into the Dominion. The matter is still being negotiated. Modified relief, even to the extent of the admission of fruit from individual States, would be appreciated. South Australia is free from fruit fly, so is Victoria. One difficulty seems to be the trade agreement New Zealand is making with U.S.A. This agreement, for all practical purposes, will exclude fruit from the Commonwealth, as although certain States are free of fruit fly, such States do not maintain a rigid embargo against fruit from other States affected with fruit fly. Zealand hopes to develop trade in fruit with the United States. Many well-informed people doubt whether New Zealand could ever develop a substantial trade in exporting fruit to U.S.A., and the wisdom of this is doubted in view of the harm inflicted on the Australian fruit industry. The position will be realised by an imaginary conversation:

N.Z. to U.S.A.: Can we make a trade agreement—you to receive our fruit?

U.S.A.: Yes! if you are free of the fruit fly and do not receive fruit from fruit fly infected countries.

N.Z.: What about receiving Oranges from Victoria and South Australia? They are free of the fruit fly. U.S.A.: Have Victoria and S.A. an embargo against

U.S.A.: Have Victoria and S.A. an embargo against receiving fruit from other States which have the fruit fly?

N.Z.: No! but there is rigid inspection.

U.S.A.: Sorry—we cannot accept N.Z. fruit if you receive fruit from sources that would in any way bring the fruit fly here.

If that attitude is maintained, the sending of fruit from Australia to New Zealand will cease.

New South Wales suffers particularly because of the large quantity of Mandarins, as well as other citrus fruits previously sent regularly to New Zealand. Other fruits which formed part of the Australia-New Zealand trade were Lemons, Pineapples, Bananas, Cherries, Grapes. All of this trade has automatically ceased.

17,000 cases of Oranges were shipped from Sydney by the s.s. "Otranto" on July 23. In the meantime the avenue for the disposal of Oranges and Mandarins in Australia is being exploited. Already considerable propaganda is conducted to induce greater consumption of citrus fruits. This propaganda has been effectively conducted over a period of years, and it is possible that an intensified campaign will further assist to increase consumption.

### MANURING CITRUS CROPS.

Mr. F. R. Arndt, District Horticultural Instructor, South Australian Department of Agriculture addressing fruitgrowers at Renmark on the subject of manuring of citrus trees, recommended adding nitrogen 5 to 6 cwt. of sulphate of ammonia to the acre per annum. Stable manure was excellent where obtainable, use 9 tons to the acre, which would be equivalent to 1 lb. of nitrogen per tree. Where organic manure is difficult to obtain, grow leguminous cover crops, making sure that these did not dry out the soil to such an extent as would deprive the trees of the necessary moisture. Heavy applications of other manures, such as phosphate or potassic fertilisers are usually unnecessary, especially if large quantities of organic matter are annually supplied to the land; but where such is not the case, then dressings of about 3 cwt. of superphosphate or bone super and 1 to 2 cwt. of sulphate of potash per acre may be annually applied to the tree.

The greatest portion of the concentrated fertilisers should be applied early in the season, about 2 to 3 weeks previous to the trees beginning their spring growth, so as to help them in the formation of new foliage and in the setting of their fruit, but a quantity of the nitrogenous fertilisers may be applied in one or two additional dressings at the rate of about 1 cwt. to 1½ cwt. of sulphate ammonia per acre at a time, after the fruit has set, and may be given to the trees between December and March. Bulky organic manures may be applied at any time, but the best time of the year would be late autumn or early winter, so that they may be worked into the soil at the mixton placehing.

into the soil at the winter's ploughing.

# UNEATABLE ORANGES DUMPED IN NEW ZEALAND.

A picture is published in the "Auckland Star" of June 2, showing a large quantity of uneatable Oranges being shovelled into a refuse boat from which the decayed fruit would be dumped into the ocean. A comment from the sender of the picture is that the Oranges were kept until rotten, Oranges in the meantime selling at 3/- per dozen. Further enquiries are being made. Comments by readers in New Zealand would be welcomed.

# Fruit Trees of Outstanding Quality

True to name, healthy and well-rooted. Citrus trees in large quantity—Budding Wood supplied by the Bud Selection Society of N.S.W.—Worked on Lemon, Sweet Orange, and Trifoliata Stock.

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### CANNED FRUIT EXPORTS.

### Large Trade with Britain.

Of the 341.815 cases of canned fruits exported from Australia between January 1 and May 31, 320,615 cases were actually sold in the United Kingdom, states Mr. E. J. Mulvany, Secretary, Department of Commerce.

This season, which started on April 1, exporters have taken the precaution of shipping goods only when sales were effected, which accounts for the small proportion of quantity exported not being actually sold.

Of the total pack last season of 2,308,000 dozen 30 oz. tins, 1,291,241 dozen tins were exported abroad, and almost

all were sold.

This season the total pack reached 4,073,358 dozen tins, and a strong effort was now being made to dispose of a large quantity of it abroad. Mr. W. J. Adams, Secretary to the Canned Fruits Control Board, was in Canada seeking business, and would later give attention to the markets in the United Kingdom. Mr. Adams was accompanied by Mr. A. W. Fairley, managing director of the Shepparton Preserving Company, who was making the trip on behalf of his company.

Although the quantity of fruit for export was large, there were hopes of finding a satisfactory market. Buyers were awaiting the export of the Californian pack, but if this was not heavy and cheap, the Australian pack should do well. The Californian sellers had the advantage of a big home market, where a large quantity of the fruit could be sold, enabling the exporters to accept lower

prices in foreign markets.



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Dependable Trees carefully packed and promptly despatched to any address in Australia.

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### CANNED FRUIT FOR THE NEAR EAST.

Imports into Netherlands East Indies.

Imports of canned fruit into the Netherlands East Indies declined from approximately 4,000,000 lbs. in 1931, to 2,330,000 in 1932. Supplies from U.S.A. dropped from 2,273,527 lbs. in 1931 to 894,675 lbs. in 1932. Australia increased her exports from 72,681 lbs. to 392,714 lbs. over the same period.

### FRUIT CANNING IN JAPAN.

Japan cans about 700,000 cases of fruit and 550,000 cases of vegetables annually. Large quantities of canned peeled Mandarins, also canned bamboo sprouts, Asparagus, Peas and Beans are also packed. The canning of Pineapples is becoming an industry of importance in Formosa.

Tobacco Seed .- Should the Bill that has been introduced into the House of Representatives, U.S.A., to prohibit the exportation of tobacco seed or plants, be carried, it will be impossible to import tobacco seed from America except by special permission, and then only in quantities for experimental purposes. Commenting on this matter, the Commonwealth Minister (Senator McLachlan) said that it would probably have repercussions as far as Australia is concerned. He pointed out the importance of Australian tobacco growers conserving disease free seed against possible shortages. The Tobacco Investigation Committee still had 200 lbs. of seed, but in view of American developments, it was important that this seed should be conserved to meet emergencies, and should not be distributed indiscriminately.



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## New South Wales Fruit-Growers Federation.

THE ANNUAL CONFERENCE of the Fruitgrowers' Federation of New South Wales was held on June 28, 29 and 30. There was a large attendance of delegates, and many matters of importance were dealt with including marketing and distribution to prevent gluts, Farm Produce Agents' Act, agents' commission, export grading regulations, New Zealand embargo, co-operation with railways department, and reduction of freight, control of orchard pests and fungus diseases, hail insurance, analyses of fertilisers, registration of nurserymen. The President, Gen. J. Heane, occupied the chair. The Conference was officially opened by the Hon. Hugh Main, M.L.A., Minister for Agriculture.

### Annual Report.

The annual report prepared by the Secretary, Col. E. E. Herrod, dealt with the many activities of the Federation. The seriousness of the New Zealand embargo was emphasised. Every effort had been made to have the embargo lifted. A plan for reorganising the Citrus Association had been submitted, a control system being recommended. ing recommended. The production and estimated production of citrus in Australia was as follows:—1922, 2,863,614 bushels; 1929, 3,981,283 bushels; 1936, 5,611,579 bushels (estimated). These figures indicated a probable surplus of over a million bushels beyond Australian consumption, and for which an export market must be developed. The Federation had fought against the removal of the Australian embargo on the importation of citrus fruit. A publicity campaign to assist the sale of Cumberland table Grapes had been successful. Rail freights had been reduced 10 per cent., but a further reduction of 10 per cent. was urgently needed. The railways department had assisted in the sale of Apples, Cherries, Oranges, Grapes Pears, Peaches, Prunes, Raisins, etc. The principal fruit was Oranges. Figures were:-Year ended December, 1930, cases, 375,070, value £42,389; 1931, cases 154,466, value £36,959; 1932, cases 76,507, value £27,698. The sale of fruit in large retail stores and chain stores was encouraging. Appreciation was expressed for the preferences granted under the Ottawa Agreement. Details are given in the report of a system of subsidy for local associations. The Bananagrowers' Association, with Mr. H. L. Anthony as President, had done much

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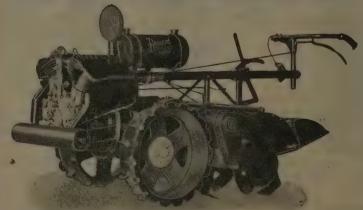
AUSTRALASIAN UNITED STEAM NAVIGATION CO. LTD.,

MacDonald, Hamilton and Co., Managing Agents, 467 Collins Street, Melbourne, C.1. Tel., Cent. 9708.

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Austral Auto-Cultivators SYDNEY Phone UW 8984 to consolidate the interests of Banana growers. Strict observance of the bunchy top regulations was imperative. The Federation was co-operating with nurserymen, and the Department in the Co-operative Bud Selection Society Limited. Buds were distributed in 1932, and the following trees were available for 1933:— Washington Navels 7,500, Valencias 6,700, Lemon 1,500, Grapefruit 1,250, a total of 16,950. Buds supplied during 1933 were as follows:-Washington Navels 14,000, Valencias 9,000, Valencia 8,000, Grapefruit 3,000 - a total of 34,000. Trees were obtainable from Messrs. L. P. Rosen and Son, T. Adamson, A. T. Eyles, H. J. Ferguson, F. Ferguson & Son, Swane Bros. Appreciative reference was made to the activities of the Australian Apple and Pear Export Council.
The N.S.W. Apple and Pear Export
Association had been successfully
launched, comprising shippers and growers. An alteration to the Apple and Pear export grading regulations was desired. A Citrus Export Control Board had been launched consisting of Messrs. Heane, Brown, Mackenzie (representing the Federation), J. S. Vagg (M.I.A.), E. C. Morrison (Gosford district), E. Johns and W. H. Price (representing shippers);

The Board to deal with the export of citrus to U.S.A. and Canadian markets, details re crops, sizes, cases, packing, inspection, shipping and marketing were under review. The N.S.W. Prunegrowers had linked up with the Australian Dried Fruits Association. The Dried Fruits Board prepared a list of dried tree fruitgrowers in order to take a poll to decide the matter of market control. The Government was requested to amend the Farm Produce Agent Act to expedite registrations under the Act. The visit of Mr. C. G. Savage to U.S.A. had resulted favorably. The Federal Government had granted a bounty on fertilisers applied to the soil between December 1, 1932, and November, 1933. There was now a better system of control and supervision over fruit barrows in Sydney. Efforts were being pursued to secure hail insurance. The market service through their market representative was successful. Appreciation was expressed for the services of the late John Neil, the Department of Agriculture, Railways Department, City Council and its Superintendent of Markets, Mr. W. J. Williams. The financial statement for the year ended March 31 showed receipts from Registration £4,087/19/7. The principal expenses were: salaries £1,246, annual Conference expenses £380/14/7, travelling expenses £451/6/10, together with office expenses, publicity Thrips Investigation (£100), Sydney Harbor celebrations, £150, etc.





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## **Australian Fruit Exports**

Ph. Astheimer & Sohn, Hamburg, in a report dated May 11, advise having that day sold 13,336 cases of W.A. Apples and 12,402 cases of Tas. Apples, ex. s.s. "Port Hobart." Fruit landed in generally good condition, and although about 36,000 cases of N.Z. Apples and about 32,000 boxes of American Apples were offered, besides W.A. and Tas. Apples, demand was quite active. W.A. Apples were fairly well colored. Prices:-Cleos. (W.A.), 8/- to 9/6, (Tas.) 7/- to 8/6; Dunns (W.A.), 8/- to 9/-, (Tas.) 7/-to 8/6; Jons. (W.A.) 6/6 to 8/-, (Tas.) 7/- to 7/6; R. Beauties (W.A.) 6/- to 6/9; G. Smiths, 7/6 to 8/-. Australian Pears.-1,625 cases of W.A. Pears and 4,313 cases of Tas. Pears were offered, ex-steamer "Port Hobart. Prices:—Beurre Bosc (Tas.) 7/- to 10/-; W.A. Jos., 9/- to 10/-; Glou Morceau, 6/6 to 8/-; Comice, 7/9 to 9/9; W. Nelis, 8/- to 9/6; Packhams (W.A. and Tas.), 8/6 to 9/9.

Hamburg (April 20). — Messrs. Timm & Gerstenkorn report sale of 7,500 cases of W.A., Vic., few N.S.W., and S. Aust. Apples, ex-steamers s.s. "Isar" (W.A. and Vic.), and s.s. "Djambi" (N.S.W. and S. Aust.). These were mostly comprised of Jons., Cleos., Dunns and L. Pippins. Fruit arrived in good condition, mostly clean and free from blemishes. W.A. Apples occasionally showed bitter pit. Prices (W.A. and Vic.), Jons., 6/6 to 8/-; Dunns, 6/6 to 8/-; Cleos., 6/6; (Sth. Aust.), Dunns, 6/6; Jons., 3/6 to 4/9; N.S.W. Apples, Cleos., 6/9 to 7/9, Jons., 7/6.

London (June 21).—The "Bendigo's" Apples brought the following prices:—Vic.: G. Smith, 9/6 to 10/6 case; Yates, 8/3 to 8/6; Rokewood, 7/6 to 9/6; others, 6/6 to 8/6. W.A.: G. Smith, 10/6 to 12/-; Dunns, 8/-; Romes, 6/9 to 7/9. N.S.W.: G. Smith, 9/- to 11/3. The "Moreton Bay's" Apples:—S.A.: G. Smith, 9/- to 11/-; Romes, 6/6 to 8/-; Dunns, 7/- to 8/6; Cleos., 7/6 to 9/-; Stones, 7/6 to 8/6. The "Port Fremantle's" and "Otago's" Apples.—Sturmers and Statesman, 11/-; Romes, 10/6; Scarlets, 9/6 to 10/-. The "Port Fremantle's" Pears, in boxes:—W.N., 10/- to 11/-; the "Devon's" W.A. Pears were very wasty, half cases Keiffers, W.N., W. Cole and Jos. brought 3/- to 4/-.

London, 23/6/33. — The heavy supplies of Apples are depressing the market. Tas. shipments have been

landed at Liverpool from the "Nitcheroy," "Stirlingshire" and "Trojan Star." Prices:—Sturmers, 5/6 to 8/6; G. Smiths, 8/3 to 10/3; Dunns, 5/9 to 7/-; Cleos., 5/- to 8/6; others, 4/6 to 7/6. Apples by the "Niagara," "Bendigo" and "Cordillera" landed at Hull, brought: Sturmers 6/- to 7/3; Jons., 5/6 to 7/6. A large proportion was withdrawn. Tas. Pears in boxes were sold: Jos., 6/6 to 8/6; W.N., 9/- to 10/-; W.C., 7/- to 10/-; Boses, 8/- to 9/9; Comice, 7/- to 10/3; others 6/- to 8/-. The "Napier Star's" shipment of Tas. Apples landed at Hamburg was sold at the following prices:-Cleos., 6/3 to 16/9; Dunns, 6/- to 14/8; Jons., 2/- to 13/3; Sturmers, 6/3 to 10/5; others, 5/7 to 14/4. A quantity transhipped to England, mostly over-ripe, was sold at 5/7 to 8/4. Few Dunns brought 16/9.

London, 23/6/33.—The "Stirling-shire" has arrived at Avonmouth with the first large consignment of Tas. Apples for Bristol. The Apples are in good condition. It is hoped this will be the forerunner of a regular direct service similar to that with Hull and Liverpool. Mr. H. W. Ely and Sir E. Snowden were the guests at a Bristol civic luncheon in honor of the occasion.

Messrs. Parnham Pty. Ltd., Queenstreet, Melbourne, advise on June 3 having received the following cable from the "White Service".—

from the "White Service":—

London.—Ex "Maloja."—Pears were
in fair demand. Bosc, 13/- to 15/-; Howell's, 9/- to 10/6; Packhams, 10/-Apples: Better demand: higher. Tas. Jons. and Cleos., 10/to 12/6. No Vic. offered. Ex "Otranto," "Turakina."-Better demand. Apples: Jons., 9/- to 11/9; King Davids, 10/- to 10/6; Bosc, 11/- to 14/9; Packhams, 11/- to 13/9; Howells, 8/9 to 10/6. Ex "Port Campbell," "Ceramic," "Zealandic," "Mool-tan," and "City Winchester."— Apples: Good trade; little easier. Jons., 8/- to 9/6; Cleos., 10/- to 11/-; London and Dunns, 9/- to 10/-. Pears fair. Jos., 12/- to 13/-; Bosc, 10/6 to 11/-. Ex "Raranga," "Orsova," "Hobart," "Campbell."—Apples: Good trade. Jons., 8/9 to 10/3; Cleos., 10/to 12/-; London, 9/6 to 10/6; Dunns, 9/- to 11/3; Romes, 9/3 to 10/-. Expect easier market shortly. Ex "Esperance Bay."-Pears moderate demand. Bosc, 9/- to 12/-; Nelis, 12/to 14/9; Jos., 11/- to 12/9. Ex "Berwickshire."-Apples: Steady market. Jons., 9/- to 9/6; Dunns, 10/- to 11/-. Hull. — Ex "Zealandic": Granny Smith, 12/6 to 14/-; others, 7/6 to 8/6. London,—Ex "Zealandic": Cleos., 9/- to 9/6; others, 8/- to 9/-. Hull.—

Ex "Port Bowen": Good demand, 9/to 9/6, almost all varieties; few 8/6
to 9/6.

Major H. Dakin, Sydney, Australian agent for Geo. Monro Ltd., advises under date June 20 having receive a cable from his firm as folows:--"Port Adelaide" developed waste, many Jons. sold 2/6 to 4/6; Cole's, 1/- to 4/-. "Oronsay."—Some Jons. over-ripe. "Millaise."—Pears nearly all ripe and over-ripe, prices from 1/- to 10/-. "Port Auckland," "Trojan Star," "Navasota," "Bendigo."-Apples, Pears, mostly good condition; general prices, Jons., 7/- to 9/6; Statesman, Rome, King Davids, Tasma, 7/- to 9/-; Sturmer, 9/- to 10/6; Yates, 8/6 to 9/6; Cox's, sound, 15/- to 18/-; Duke of Clarence, 7/6 to 8/6; Cleos., 8/- to 10/-. "Millaise." -Sydney Apples good, Jons., 8/6 to 10/-; Statesman, 9/- to 10/-; G. Smith, 10/6 to 12/6; L. Pippin, 7/6 to 9/6; King David, 8/- to 9/-. General Pear prices, cases:-Nelis, 10/- to 12/-; Jos., Bosc, 9/- to 12/-; W. Cole, 8/- to 11/-; Glous, 9/- to 10/-; Packhams, 8/6 to 9/-; Broom Park, Easters, 7/6. Apple market weaker, accept lower prices. Fair demand good Pears, but large quantities of small, inferior fruit spoiling market. "Nictherary," Hull, poor condition with much waste.

## The Postal Service

RREGULARITIES in respect of the posting of mail matter are of frequent occurrence, in fact, so frequent that the Postal Department considers it advisable to direct attention to the matter and to contribute from time to time articles for publication dealing with postal activities and setting out the salient features to be observed in preparing postal articles and in posting them.

Business establishments are large users of the post, and the Department considers it essential that their employees in the mailing sections should be thoroughly conversant with postal rates and laws, etc., because an employee who lacks this knowledge may involve his firm in a large unnecessary expenditure in postage charges during a year. These remarks also apply in a lesser degree to all members of the public.

The first article deals with-

#### "The Post Office Guide."

and a most fitting slogan in regard to this publication would be "Read the 'Post Office Guide' and save money." It contains not only detailed information regarding rates of postage and conditions governing mail matter addressed to places all over the world and Departmental Rules and Regulations on every phase of postal, telegraphic and telephonic matters, but also the names of every post town in Australia; a compilation which in itself is very valuable to any business organisation whose postal activities extend throughout the Commonwealth, and it tells you whether the places named are telegraph and telephone

offices, whether or not money order and postal nete business is transacted, and other particulars of interest and value. It is published once yearly at a nominal price and subscribers are, in addition, supplied with monthly supplements and a copy of each issue of a table showing the times of arrival and despatch of mails within the State in which the subscription is paid.

The "Table of Arrival and Despatch of Mails" in itself is a valuable reference, as all post towns in the State are listed in alphabetical order therein, and opposite the name of each post town is shown the time of closing of mails for despatch and the time mails are due for receipt. Not a day passes without a large number of enquiries being received by telephone at the General Post Office regarding information contained in the "Post Office Guide" and the "Table of Arrival and Despatch of Mails." Therefore, the possession of these records by the general public, especially business organisations which are large users of the post, would materially convenience them.

In this article, reference is made specially to the "Post Office Guide" for the reason that that publication is really the basis of a sound knowledge of postal rates and laws, and it is therefore essential that everyone transacting postal business to any appreciable extent should possess a copy of the Guide. In later articles it is proposed to refer to the various facilities provided by the Department, to explain their uses and advantages, and at the same time mention the various irregularities which come under the Department's notice from time to time. This will serve the double purpose of making readers conversant with the postal facilities provided, and enable them to avoid the irregularities.

# Australian and New Zealand Fruit Trade

Market Notes and News - Prices, etc.

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.

Advertising in this Journal. NEW SOUTH WALES.

CITY PRUIT MARKETS.

Associated Growers' Selling Agency Ltd. Black, H., & Son. Chitton, F. Fruiterers' Supply Company.
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Hop Lee & Co. Ltd.
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Lockart, H. C. Moss, J., & Sons.
Musgrove, W., & Son.
McEnally, R.
Rogers, F. H. G.
Slater, Jas.
Schuster, A. E.
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Stubbs, J.
Sunnyside Orchards Ltd.
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Young, Frank.

VICTORIA.

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Bell, Banson Pty. Ltd., Wholesale Fruit Market.
Cavé, F., & Co. Pty. Ltd., Wholesale Fruit Market.
Davis, J., Pty. Ltd., Wholesale Fruit Market.
Frankel, H. & S., Wholesale Fruit Market.
Millis, A., & Sons, Wholesale Fruit Market.
Millis, A., & Sons, Wholesale Fruit Market.
Millis, A., & Sons, Wholesale Fruit Market.
Mulcean, N. N., Pty. Ltd.
Mumford, J. G., Wholesale Fruit Market.
Pang & Co. Ltd., H. Louey, Wholesale Fruit Market.
Partikeos, P. A., Wholesale Fruit Market.
Pitt, A. E.
Producers' Dist. Society, Wholesale Fruit Market.
Ross, J. W., Wholesale Fruit Market.
Sang Goon & Co., Wholesale Fruit Market.
Silbert, Sharp & Davies, Wholesale Fruit Market.
Stott & Sons, T., Wholesale Fruit Market.
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market.
Tong, W. S., Wholesale Fruit Market.
Vear, F. W., Pty. Ltd.
Wade, H. M., & Co., Wholesale Fruit Market.
Wilson, H., Pty. Ltd., Wholesale Fruit Market.
Wing, R. A., & Co., Wholesale Fruit Market.
Wing, Young & Co., Wholesale Fruit Market.

QUEENSLAND. Brisbane:

Barr, A. S., Fruit Exchange, Cooksley & Co., Fruit Exchange, Geeves, H. V., Fruit Exchange, Robsons Ltd., Fruit Exchange, Winters, E.

Hobart:

Eric Burgess Pty. Ltd., 88 Collins Street, Hobart.
E. R. Cottier Pty. Ltd., Temple Place, Macquarie Street
Jones, H., Co. Ltd., Fruit Exporters.
Peacock, W. D., & Co., Fruit Exporters, and at London.

Bender & Co. Pty. Ltd., 100 Elizabeth Street.

NEW ZEALAND.

Co-operative Fruitgrowers of Otago Ltd.

SHEAT BRITAIN.

London and North-Eastern Railway, 7 Bridge-street, Sydney, N.S.W.

ndon:
Lewis, E. H., & Son Ltd., Covent Garden, London.
Margetson & Co. Ltd., Covent Garden, London.
Monro, Geo., Ltd., Covent Garden.
Pask, Cornish & Smart, London.
Port of London (Capt. A. W. Pearse, 10 Bligh St., Sydney).
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
White & Son Ltd., London Fruit Exchange, Spitalfields,
E.1.

Manchester:
The Port of Manchester Rep., W. J. Wade, 8 Bridge Street, Sydney.

GERMANY.

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Fruchthandel, Gesellschaft.
Hamburg:
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## Sydney Market.

Month of June.

NO IMPROVEMENT in trading can be reported for the past month, enquiry for most varieties being poor. The loss of the New Zealand market was reflected in values for citrus fruits, and prospects for the next few weeks are not good.

Exports of Oranges commenced during the month, about 18,000 export cases being shipped to London by the "Otranto," while a shipment of Navels and Lemons was also sent to Canada on the "Aorangi." A few hundred cases of Navels were exported to China.

Exports of Apples continued on a smaller scale and limited amounts will also be sent away in July.

Two further shipments of Oranges to the U.K. have been arranged for July, bookings for the "Orestes" on the 12/7/33 for Liverpool and Glasgow being 9,000 cases, and for the "Comorin" to London on 14/7/33 about 14,000 cases. The "Chitral" is expected to load about 14,000 cases of Oranges on 11/8/33, also for London, while it is hoped to arrange a further boat in August and another about mid-September to load at least 20,000 cases of Valencias.

Apples.—Although shipments from Tasmania fell off during the month, supplies were ample to meet the demand. Enquiry for good sizes of red Apples was a little better and this was reflected in values, which moved up slightly. Cookers also sold more readily with prices a little better than last month. There was a fair enquiry for local Romes and Granny Smiths for long distance carrying, and both these varieties improved 1/- to 2/-per case for best sizes.

Bananas.—Supplies were on the light side until the past week, when shipments from Norfolk Island and Fiji arrived. Demand fell off from the middle of the month, and values came back during the last week.

Grapes.—Demand was only fair, but with lighter supplies a slight improvement in values was experienced, and crops are now practically finished. Exports of Ohanez continued throughout the month and limited supplies are still in cold store.

Grapefruit.—Consignments increased and values came back to 5/- to 8/-, with an odd brand selling higher.

Lemons.—Arrivals were not heavy and below normal, most districts being late this season. Enquiry was not strong, but there was little alteration in values as far as choice colored lines were concerned. Inferior lines were cheaper.

Mandarins.—Supplies were heavier and values came back to 4/- for best sizes, with a few specials higher. Small fruit sold very slowly at low values. Crops are reported to be heavy and prospects are not encouraging.

Oranges.—Arrivals during the month were not heavy and below those of last season. Buying for interstate markets fell off during the month, and values for Navels came back, good sizes selling at 5/- at the end of the month, with standards or outsizes worth 4/-. Common Oranges were slow of sale at 2/8 to 4/-.

Passionfruit.—Supplies increased over the past month, but values were fairly steady at about 6/- to 8/- for choice lines with inferior down to 3/- per box.

Pears—Were in light supply and cold store stocks have been largely drawn on. Prices moved up for all good lines, and are not expected to come back.

Pineapples-Were in light supply in the early part of

the month, more particularly of sizes 18 to 24. Arrivals of large fruit increased about the middle of the month and prices fell considerably, 12's being sold at 6/- to 7/-with 18's to 21's worth up to 10/-.—P. S. Macdermott.

### NEW SOUTH WALES.

Sydney (26/6/33).—The Market Representative of the Fruitgrowers' Federation of N.S.W. reports prices as follows:—Apples: Cleos. (N.S.W. and Tas.) 4/- to 8/-; Demo. (N.S.W. and Tas.) 4/- to 8/-; Del. (N.S.W.) 5/- to 11/-; Del. (Tas. and Vic.) 4/- to 8/-; F. Crab (Tas.) 4/- to 7/-; G. Smith (N.S.W.) 5/- to 10/-; Geeveston Fanny (Tas.) 3/6 to 6/-; Jon. (N.S.W.) 5/- to 10/-; Jon. (Vic. and Tas.) 4/- to 8/-; L. Pippin (N.S.W. and Tas.) 3/- to 6/-; R. Beauty (N.S.W. and Tas.) 3/- to 9/-; Sturmer Pippin (N.S.W., Tas.) 3/- to 5/6; Scarlet P. (Tas.) 4/- to 8/-; Stayman (N.S.W.) 6/- to 9/-. Pears: B. Bosc (Vic., Tas.) 4/- to 8/-; Howell (Vic.) 4/- to 8/-; Packhams T. (N.S.W.) 5/- to 12/-; W. Cole (N.S.W., Tas., Vic.) 5/- to 12/-; Jos. (Tas., Vic.) 4/- to 10/-; W. Nelis (N.S.W., Vic.) 5/- to 9/-. Bananas: Qld. and N.S.W. 12/- to 23/-; Norfolk Island 9/- to 15/-; Fiji 14/- to 22/-. Custard Apples, Qld., 2/6 to 4/-, few 5/-. Citrus: Lemons, green 4/- to 6/-, N.S.W. partly colored 4/- to 7/-; N.S.W. colored 6/- to 7/-. Oranges: Siletta 2/- to 3/- bush.; Joppa 3/- to 4/-; Paterson River 3/- to 3/6. Grapefruit: N.S.W. 5/- to 7/-; special Marsh's Seedless 7/to 8/-; Mandarins, Thorny 2/- to 3/- half; Emperor 1/6 to 4/- bush. Navels: N.S.W. 3/- to 6/-. Papaws 7/to 11/-, few colored higher; Pineapples (Qld.) 6/- to 9/-, few higher; Passionfruit (N.S.W.) 5/- to 6/-; (Vic. and Qld.) 4/- to 6/-.

#### EXPORT OF ORANGES.

#### 150,000 cases for Overscas Markets.

Following the export from N.S.W. of 25,000 cases of Oranges (1½ bushels) per "Otranto," to the United Kingdom, at the end of June, shipments of 25,000 cases will follow on the "Orestes," and 14,000 cases on the "Comorin." Further shipments are to continue up to the anticipated total of 125,000 cases, plus 25,000 cases to Canada at the rate of 5,000 cases per month from June to October.

If arrangements can be made with the Federal Government for an export subsidy, it is possible that the foregoing export quantity to the United Kingdom will be doubled.

During the week ended June 19, 19,000 cases of Tasmanian and Victorian Apples arrived in Sydney. Lighter deliveries caused a firming of the prices.

#### A NEW FRUIT DRINK.

Recently, Mr. R. D. Gearing, of Cape Horn Vineyard, Echuca, has been processing Grapes at Rutherglen for fruit drinks. He has purchased about 30 tons of Grapes which yielded 4,000 gallons of Grape juice. The juice is brought to a temperature of 140 degrees to arrest fermentation and it is then run into four gallon tins and pasteurised, after which it is bottled. This industry will help to absorb some of the surplus Grapes of Rutherglen district, as Mr. Gearing has a market for the juice.—"Sunraysia Daily."



F. Chilton,

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City Municipal Fruit Markets, Sydney. Reference-E.S.&A. Bank Ltd., Haymarket

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We Solicit portion of your Consignments.
Prompt Returns Immediately on Completion of Sales.
Well established business in an advantageous position in the Market.

### TOMATO GROWING AT PORTLAND, VIC.

#### (By Victor Castlehow.)

SIXTEEN YEARS AGO Messrs. Herbertson Bros., H. L. Jennings, C. L. Oakley, H. T. Baldwin, the late T. I. Smith, and a few others started growing Tomatoes at Portland, Victoria. The distinctive flavour soon won for the Tomatoes the highest prices on Sydney, Melbourne and Brisbane markets, causing many to engage in Tomato growing. In 1932 more than 300 acres were put under crop and no fewer than 65,743 bushels were marketed. The markets becoming glutted, however, caused shippers to leave much of their crop on the field, and this, together with the protracted dry spell during the fruiting stage, has considerably affected the 1933 crop. No more than 100 acres were planted, and only a two-thirds crop has been set. The estimated yield has been set down at 37,000 bushels, and the value of production is likely to be about £17,000.

Prices ranged from 7/- to 20/- a bushel. Growers have adopted the system of sending to selected agents.

#### £3,000 a Week in Normal Year.

Mr. M. Barrett, Secretary of the Portland Tomato Growers' Association, stated that in a normal year the district's return from Tomatoes is from £30,000 to £33,000. In other words, since the season lasts from ten to twelve weeks, the assertion that Portland's income from Tomatoes is £3,000 a week in a normal year seems justifiable.

As a rule, Portland Tomatoes come on to the market when other supplies are dwindling, and finish just before Bowen (Queensland) begins. That being so, good average prices are often obtained.

Excellent crops were produced on the farms of Mr. H. T. Baldwin (1 acre), H. L. Jeninngs (3 acres), J. Allen (1 acre), Herbertson Bros. (4 acres), C. L. Oakley (5½ acres), A. Arnott (3 acres), E. Hollis (3 acres), D. McMillan (3 acres), W. Mills (3 acres), Perritt Bros., Rose Bros., T. Patterson, R. Patterson, A. J. Burville, Les. Jennings, L. Tonkin, J. L. Bolton, G. Burch, W. Stuchbury, W. Howell, A. A. Campbell, N. Walsh, Harold Smith, E. Callender, H. G. McCombe, E. W. Burris, Mr. Cathels, Chas. Kieller, W. J. Edwards, P. Cross and O. Habw

Other district growers include Messrs. W. Howell, W. J. Edwards, S. Pitts, R. J. Kurtze, A. Campbell, W. Dent, R. J. Kerr (good crop), and C. Kieller. Several of the foregoing are also Apple-growers.

### The Best Varieties.

Messrs. H. T. Baldwin and J. Allen, who tried staking last year, met with so much success that they have repeated the practice. The variéties used for staking are "Bonny Best," "John Bear," and a variety peculiar to Portland, but as yet unnamed. Mr. Baldwin said that he obtained more than twice the production from the staked —when one thinks in acres as distinct from individual bush production. But what attracts so much is the improved quality and shape of the fruit grown on the staked plants.

### Tomato Crop Competition.

A Tomato crop competition was conducted this season by the P. & A. Society. The judge was Mr. Basil Krone, Department of Agriculture. The possible points were as follows:—Growth 25, productiveness 25, freedom from broken plants and disease 25, freedom from weeds and condition of soil and subsoil 25. Total, 100. Mr. W. Mills, with 96 points out of a possible 100, was the winner, with Mr. H. Jennings (93 pts.) second. Points scored by others competitors were:—Owen Haby and Jas. Allen (92), C. Oakley (84), and Les. Condon (83).

## AUSTRALIA'S APPLE AND PEAR EXPORTS.

The Minister for Commerce (Mr. F. H. Stewart) reports that, from the commencement of this year, and up to June 3, 5,385,056 cases of Apples and 660,407 cases of Pears have been shipped from Australia, which exceeds last year's shipments by 729,260 cases, and 366,483 cases of Apples and Pears respectively.

Details of exports from the various States from January 1 to June 3, 1933, are as follow:—

State. Apples.	Pears.
Tasmania 2,829,293	163,274
Victoria 1,421,467	390,651
Western Australia 544,596	46,977
New South Wales 321,165	44,758
South Australia 249,494	14,630
Queensland	117
5,385,056	660,407

Direct shipments to foreign countries this season have been 494,017 cases to Germany, 66,876 to Holland, and 42,052 to Sweden.

## CANNED FRUIT EXPORT.

The quantity of canned fruits exported from Australia to various destinations from the commencement of the season (January 1), to May 31, is shown in a statement to hand from the Canned Fruits Control Board. The total exports were 568,390 doz. 30 oz. tins and 216,069 doz. 16 oz. tins, made up of Apricots, 141,783 doz. 30 oz. tins, 24,416 doz. 16 oz. tins; Peaches 242,897 doz. 30 oz. tins, 104,625 doz. 16 oz. tins; Pears 183,710 doz. 30 oz. tins and 87,028 16 oz. tins. The principal exports were to the United Kingdom:—Apricots 132,096 doz. 30 oz. tins, 23,700 doz. 16 oz. tins; Peaches 218,322 doz. 30 oz. tins, 102,956 doz. 16 oz. tins; Pears 177,441 doz. 30 oz. tins, 85,880 doz. 16 oz. tins. Other quantities went to New Zealand, the East, Canada, etc. In addition to the above, 150 doz. Apricots and 463 doz. Peaches of No. 10 size were exported to Canada, and 14 doz. Apricots and 19 doz. Peaches of No. 10 size were exported to the East.

#### CITRUS TECHNICAL ENQUIRY.

An announcement was recently made that the Federal Government would set up a technical committee to enquire into the economic aspect of the Australian along the lines set out by Mr. A. W. Schwennesen at the recent Interstate Citrus Conference.

Consideration will be given to the granting of a loan of £1,175,000 to facilitate the placing out of production of areas bearing inferior fruit.

The Committee will consist of representatives of the Department of Commerce, the Development branch of the C.S.I.R., the Victorian Irrigation Commission, the Departments of Agriculture in all States, and the citrus industry generally.

Increased Fruit Plantings.—Many enquiries regarding the most suitable fruits, and varieties thereof have recently been received by the Victorian Dept. of Agriculture. This is regarded by the Department as a healthy sign, showing the confidence of the powers in the industry.



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#### AUSTRALIAN DRIED FRUITS.

Sales in Oversea Markets.

The Commonwealth Dried Fruits Control Board, in their third bulletin (dated June 3), relative to the disposal of the harvest of the present season, advise that during the last fortnight 1,635 tons of Australian dried fruits were recorded with the London Agency as having been sold in Great Britain.

Sales included 500 tons Currants, new season's, averaging £34/12/10, and 1,074 tons Sultanas, the average for the new season's being £38/7/4 per ton.

Advice has also been received of further sales to Canada, the aggregate sales of present season reported to the

Board being 2,857 tons, while New Zealand buyers have operated to the extent of 1,078 tons.

Shipments to Great Britain to date amount to 30,372 tons, comprising 21,746 tons Sultanas, 7,306 tons Currants, and 1,320 tons Lexias.

In the fourth bulletin the Board reports that sales in Great Britain as recorded with the London Agency during the fortnight ending June 15, covered 1,106 tons of Australian dried fruit.

Sales included 809 tons new season's Sultanas at an average of £37, and 213 tons new season's Currants at an average of £34/12/8.

Love, hope, fear, faith—these make humanity, These are its sign, and note and character.

#### SAYING IT IN VERSE.

### Kill the Grubs.

Now a "Codlin's" a "Moth" and a "Moth" is a "Plane," But when found in an Apple they're one and the same; For the moth is the grub and you all will agree It's "plain" to behold by the fruit of the tree.

There are plenty who'll moan at two bob for a case, When their stuff is by grubs made a reg'lar disgrace; When the fruit is rejected and Inspector they blame, Which is hardly quite fair and not playing the game.

There's a saying of old, rather trite, I'll admit, "That a lesson if learned well, will save quite a bit"; First the grub climbs the trunk, finds a nice place to lurk, Then attacking the flower does its terrible work.

Now to save you your fruit from so cunning a lot, Some bright information for you I have got; It's as simple, as simple, as simple, can be, But the fruit, what a diff'rence you soon will agree.

Men learned in science, after much consultation, Have discovered a cure for the whole situation; KILL THE GRUBS, Ah; you say that's a sensible move, And it's easily done, as this method I'll prove.

There's a firm in the City each orchardist knows, Where to purchase the "Vallo" brand goods, oft he goes; While they sell stuff to kill the pests of the land, Special mention is due to "THE PERFECT TREE BAND."

Lady "Codlin," quoth man, versed in orchardist lore, Lays her eggs, to produce her a family four score; So an army of grubs will their hunger appease, When the "larvae developed" are at home in your trees.

Now I think I have giv'n you a fair word of warning, That fruit fit for a King shall your orchard adorning MAKE PROFIT FOR YOU and choice fruit for the table, Use "THE PERFECT TREE BAND" with the proved "Vallo" label. —(Advt.) S.P.D.

## CITRUS PROBLEMS AT ROCHESTER.

The Committee which is enquiring into citrus problems in the Rochester district, consists of Messrs. F. M. Read, Senior Horticultural Research Officer; W. R. Jewell, Research Chemist, Department of Agriculture; J. M. Matthews, Chemist, and Ira B. Hughes, District Engineer of the State Rivers and Water Supply Commission.

## COMMERCIAL INQUIRIES.

The following commercial inquiries have been received by the Department of Commerce. No responsibility is accepted as to the standing of inquirers, with whom firms interested are requested to communicate direct. References accompany those inquiries marked (a), and interested firms will be supplied, in confidence, with information as to the general standing of inquirers on application to the Department of Commerce, A.M.P. Chambers, Collins-street, Melbourne.

- (a) Messrs. Maim & Stahl Aktiebolag, of Regeringsgatan 18, Stockholm, desire to get in touch with Australian exporters of canned fruits.
- (a) Mr. J. Evers, of Brouwersgracht 252, Amsterdam, desires to get in touch with Australian exporters of dried and canned fruits.
- E. Rasiah Fernando, general commission agent, The Paris Bazaar, Colombo, Ceylon, desires to make contact with exporters of dried fruits, Apples, Oranges, Grapes, wheat, pollard, potatoes, etc.
- (a) 1. Messrs. Walter Saxelby and Sons, 12 Lancaster-avenue, Fennel-street, Manchester, England, desire to act as agents or brokers on the Manchester market for Australian produce.
- (a) 2. Messrs. Perry and Hope Ltd., Forth and Clyde Chemical Works Nitshill, near Glasgow, desire to obtain direct supplies of frozen egg pulp.
- 3. Messrs. F. Manley Importing Co., of 200 Bay-street, Toronto, Ontario, desire to secure agency for any class of Australian goods in Canada.
- 4. Messrs. Dewan Bahadur Kesrisingh Chandmal, merchants and commission agents, Zaveri Bazaar, Bombay 2, India, desire to get in touch with exporters of chemicals, dried fruits, wool, oil-cake, etc.

## Citrus Gowers!

ALL VARIETIES CITRUS at 70/- per 100.

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## "Fruit World Annual"

Comprehensive review of Australian and New Zealand fruit industry.

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"WE STRIVE TO PLEASE"

#### VICTORIA.

Melbourne, 30/6/33.—Prices quoted yesterday by the Wholesale Fruit Merchants' Association were:—Apples, per case: Eating, to 5/-; cooking, to 3/-. Bananas: Qld.. double case, green, 8's and 9's, 21/- to 22/-; 7's, 19/- to 20/-; 6's, 16/- to 18/-; rust-affected fruit, lower. Grapes, 2/6 to 7/- case, according to variety and quality. Lemons, case, 5/- to 7/-. Mandarins: N.S.W., to 6/-; Vic., to 7/-; S. Aust., to 8/-; small and inferior lines, lower. Navel Oranges: N.S.W., 4/- to 6/-; Vic., 4/- to 8/-, few specials, higher. Grapefruit, 4/- to 6/- Custard Apples, 4/- to 6/- half case. Passionfruit, 4/- to 8/-, few special to 9/- case. Pineapples, double case, 7/- to 9/-, best counts to 10/-. Pears, best, to 6/- case; Papaws, 11/- to 14/- double case.

The Melbourne market manager of the Federal Citrus Council of Australia reports that sales yesterday were as follow:—Navel Oranges, average Vic. and N.S.W. standards, large, 4/6; best counts, 6/-; selected standards, unwrapped, 5/- to 7/6; few, 8/-; selected wrapped higher, with a few 10/-. Mandarins, mature red varieties, 160-248, to 8/-; a few, 9/-; 250-300, 6/- to 7/-; smaller, to 4/- and 5/-; others, lower, including Sydney Emperors, nominally 5/-, best counts. Grapefruit, selected standards, counts, 54-75, 6/-; few, 7/-; 96 up, from 4/-; average standards nominally 5/-. Lemons, average standards, 6/-; selected 8/-.

#### EXPORT FROM VICTORIA.

For the week ended June 16, 37,089 cases of Apples and Pears were forwarded to U.K. and the Continent from Victoria. The "Ballarat" on June 12 took 12,451 cases Apples and 18,293 cases Pears to London, while the "Ascanius," which sailed two days later, loaded 5,585 cases Apples for Liverpool and 770 cases for Glasgow.

Total shipments of Apples and Pears from Victoria to June 16 were 1,600,000 cases, Plums 3,624 cases. London has topped the list with 1,195,011 cases made up of 813,657 cases Apples, 377,730 cases Pears, and 3,624 cases Plums. Liverpool, 236,725 cases Apples; Hull, 165,749 Apples; Glasgow, 77,338 Apples; Hamburg, 118,350 Apples, 6,095 Pears; Bremen, 4,013 Apples, 6,707 Pears; Rotterdam, 14,315 Apples; Dunkirk, 54 Apples; Oslo, 11 Apples; Antwerp, 4 Apples.

#### COMMERCIAL NEWS.

The Irymple Packing Pty. Ltd. has increased its capital from  $\pounds50,000$  to  $\pounds100,000$ .

### VICTORIAN APPLES IN GLASGOW.

## Direct Shipment Successful.

Victoria's first direct consignment of Apples to Glasgow was highly successful according to advice received by the Director of Agriculture, Mr. H. A. Mullett, from the Trade Commissioner in London (Mr. F. White).

Mr. White, who visited Glasgow to inspect the fruit

Mr. White, who visited Glasgow to inspect the fruit which was shipped on the s.s. "Merionee" states that general satisfaction was expressed at the cleanliness of the fruit, the packing and the containers used—the Cana-

# F. W. VEAR PTY.

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Highest Market Rates Assured - Prompt Settlements

Fruit Exported to all countries. Supplies of wood wool, cases, nails, wire and other packing equipment always on hand.

dian standard case. The shipment consisted of 12,781 cases and as there was a shortage of American box Apples on the market, good prices, ranging from 9/3 to 14/- per case were realised. Prices for the different varieties were as follow:—Jonathans up to 11/6; Dunn's up to 11/-; Delicious up to 14/-; Rome Beauty up to 10/-; Pomme de Niege, 10/9; London Pippin up to 9/9; Stone Pippin up to 9/3; Granny Smith up to 14/-; Aesopus Spitz, 10/-; Nickajack up to 9/3.

The Cleopatra and Dunn's varieties were reported to be showing a little bitter pit, and some of the Jonathans were slightly shrivelled; otherwise it was a nice lot of fruit and well discharged. Mr. White added that considering the quantity of fruit coming in the market was keeping up well.

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In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VIC-TORIA, the following list is given. All are members of the above Association, and are registered firms carrying on business in the

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W. A. WATKINS (5).

P. A. PATRIKEOS (36).

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R. RENOF (22). G. WOOLF & SONS (29-30).

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Stand numbers are as indicated in parentheses.

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DAVID SMITH PTY. LTD. (3).

## The Victorian Fruit Marketing Association.

A meeting of the Executive of the Victorian Fruit Marketing Association was held at the Board Room, Commercial Travellers' Association, Melbourne, on Wednesday. May 31, 1933.

There were present: Messrs. G. W. Brown (Chairman), W. P. Hutchinson, A. S. Harrison, W. H. Carne, J. B. Mills, J. W. Bailey, K. Eagle, W. A. Webb, F. R. Mellor, C. J. Parnham, E. I. Lawford, J. M. Ward, E. Meeking, B. Krone (Dept. of Agriculture), R. F. Turnbull, and A. S. Clarke (C.I.S.R.), B. McGowan (Tasmania), and the Secretary, R. E. Boardman.

Apologies were received from Messrs. H. Ford, J. Barker, F. Cave, and A. G. Whitlam. Mr. Barker is on a visit to England, and was granted leave of absence for four months.

Case Standardisation.—Messrs. R. F. Turnbull and A. S. Clarke, representing the Fruit Case Committee of the Australian Standards Association and the C.S.I.R., presented a progress report of two years' investigation into the respective merits of the dump and the Canadian standard cases. At the conclusion of Mr. Turnbull's address, technical points were discussed with members of the executive. It was announced that the investigation would continue for the third year. As the report was a progress one, and no decisions had been reached, it was not available for publication for the time being. A hearty vote of thanks was accorded to Messrs. Turnbull and Clark on the motion of Messrs. Bailey and Mellor.

Alteration to Constitution.—The Chairman reported that owing to finance for administration being available for this year from the export levy, an alteration to the constitution was necessary. At the request of the Orchardists and Fruit Cool Stores Association, a conference of the executive of that body had been held, when the Cool Stores Association suggested an alteration to the constitution of the Victorian Fruit Marketing Association to provide:-1. That all who paid the levy should automatically become members. 2. Certain limitation to the voting power of shipper members.

After discussion, the following alterations were decided upon on the motion of Messrs. Mellor and Carne.

Present Constitution.

Present Constitution.

3 (a) Membership, Etc.
Membership of the
Association is open to
all bona-fide growers
and/or exporters of
fresh deciduous fruits
who agree to the rules
of the Association.
Any member losing
these qualifications
shall be deemed to
have resigned.

Alterations.

Alterations.

3 (a) Membership, Fic. Membership of the Association is open to all bona-fide growers and/or exporters of fresh deciduous fruits who agree to the rules of the Association. "Exporter shall include a representative resident in Victoria of any bona-fide overseas salesman of such fruits. Any member losing these qualifications shall be deemed to have resigned.

3 (f) Add—

In the event of the Association receiving for administrative purposes any portion of a levy imposed on exports of fresh deciduous fruit by the Commonwealth Government, any person who has contributed to such levy shall be entitled to become a member of this Association on making application in writing, accompanied by verification of the amount contributed by him, to the Secretary.

4. Delete this clause.

Subscription, 2/6 per annum. It was further decided to give notice of these proposed alterations to all members of the V.F.M.A. and take a postal ballot in three months' time. In the event of an affirmative vote, an application form for membership in the V.F.M.A., accompanied by an explanatory letter approved by the chairman, to be sent to all growers who exported overseas this season.

Other projected alterations to the constitution (see minutes of meeting, November 16, 1932), having reference to levies on grower and shipper members, were deferred pending a decision of the Apple and Pear Export Council, at the Conference in Sydney in November.

Overseas Freight Rates.—Letter received from the President of the Apple and Pear Council, urging the attendance of a grower delegate at the Australian Overseas Transport Association Conference at Sydney, on June 19, also requesting a conference of fruit industry delegates on the Saturday or Sunday prior to the A.O.T.A. Conference.

Mr. Hutchinson moved that the V.F.M.A. send a delegate to the A.O.T.A. Conference in Sydney, on June 19. Mr. Lawford, in seconding, said that the Australian fruit industry paid over £1,000,000 in freight this season. The resolution was supported by the grower and shipper members and carried unanimously. It was decided on the motion of Messrs. Hutchinson and Webb that the President, Mr. G. W. Brown, be appointed to attend the A.O.T.A. Conference.

Ottawa Preferences.—Letter received from the Apple and Pear Export Council, detailing the action taken to counter the reduction of freights on American fruit which would have the effect of nullifying the Ottawa Preferences. It was reported that the action taken was beneficial and the letter was received.

Apple Gift Scheme.—Letter received from the Apple and Pear Export Council, conveying suggestion from the Director of Trade Publicity in England, Mr. A. E. Hyland, for an Apple Gift Scheme, along the lines of the recent gift scheme which had been operating with regard to Australian lambs, dried and canned fruits, etc.: the people in Australia to pay a sum which included the price of the produce plus exchange, the goods to be delivered to friends in Great Britain from stocks on the spot. It was decided to take up this matter in good time for next season's export.

Fruit for the East.—The Apple and Pear Export Council wrote enclosing report by Mr. H. J. Bishop, of Adelaide, regarding the handling of fruit at ports of discharge in the Near East. Received with appreciation.

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## A Higher Price for Your Fruit

by consigning it to:-

# ORCHARD FRUIT SUPPLIES CO. Rockhampton, Queensland

This Company owns five Retail Fruit Shops as well as running a substantial Wholesale and Country trade, and can get you the best possible prices for your fruit.

Prompt advices and returns.

Give us a trial now.

. Address: Box 223, Rockhampton. 'Phone 1584. . .

Research Committee.—A suggestion had been put forward that the Research Committee might meet more regularly. One proposal was that meetings be held on the same day as the Executive meetings—say an hour earlier. Deferred till next meeting.

National Mark for Quality.—The chairman stated that in England a National Mark Scheme was operating: fruit and produce which came up to certain standards could be branded with the National Mark, and the public accepted these standards at enhanced prices. This scheme was under the auspices of the Ministry of Agriculture. In New Zealand a similar scheme was operating as the "Dominion Mark," grades being defined. Standardised fruit of the "Dominion Mark" quality was sold at a premium. The scheme was financed by growers purchasing the required labels and by means of a small levy which provided sufficient for effective propaganda.

Colored posters and booklets as used in the New Zealand scheme were displayed. It was decided to deal further with this matter at the next meeting.

Railway Department Appreciated.—Mr. Mellor spoke in terms of appreciation of the highly efficient services of the Railway Department in transporting a record export crop for shipment. The work of Room 10, and Mr. Brandy, was remarkably successful. He moved that a vote of appreciation be conveyed to the Railways Department. Mr. Carne seconded: other members spoke in support. The motion was carried, and it was further decided that a letter of thanks to the railways be drafted for publication in the daily papers.

Agricultural Department Thanked.—In a letter from Mr. H. Ford, favorable reference was made to the work of the Department of Agriculture, both the Export Inspectors, and the Fruit Packing Instructors. Mr. Hutchinson moved a vote of thanks to the Department of Agriculture for the services of the inspection and packing staff. Mr. Mills seconded.—Carried.

1933 Exports.—Letters were received from the Apple and Pear Export Council, conveying copies of cables to the National Federation, London, and replied thereto regarding the estimated export for 1933.

Sales Tax on Wrapping Paper.—The Secretary reported having been in touch by correspondence with the Sales Tax Commissioner, members of the Federal Cabinet and the House of Representatives regarding the request to the Sales Tax Commissioner that the abolition of the Sales Tax on fruit wrapping paper be made retrospective to the time of its imposition. No finality had been reached, but the matter was being pursued. The Apple and Pear Export Council wrote stating that a New South Wales packing house had advised that the Sales Tax Commissioner was requesting payment of Sales Tax on wrapping paper used in the association's packing house, whereas if the paper had been sold direct to growers, no Sales Tax would be chargeable. This position appeared to be absurd insofar as this would tend to defeat the objective of centralised packing. The question was asked whether packing houses in Victoria had been similarly dealt with. Members present stated they had no knowledge of a similar request for Sales Tax in Victoria.

#### HUGE QUANTITIES OF NAILS.

Someone with a mathematical turn of mind has been busy. Three casemakers at Harcourt used over two tons of nails in making 100,000 cases, thus each man drove in by hand about 1,000,000 nails.

### RETAIL FRUITERERS' ASSOCIATION.

The first meeting of the new executive of the Melbourne and Metropolitan Retail Fruiterers' Association, was held on June 1, when there was almost a full attendance of delogrates

Office-bearers were elected as follows:—President, Mr. E. King; Vice-Pres., Mr. W. Delaney; Treasurer, Mr. C. Mawdsley; Assistant Secretary, Mr. W. Trivett; the newly elected officers being installed by Mr. W. Grant, past president.

Under the heading of general business, the Secretary (Mr. E. W. Thompson), reported that the new regulations were almost complete in reference to the selling of certain fruits by number instead of by weight as at present, and many delegates expressed their pleasure and stated they felt sure the change would be very beneficial to all engaged in the fruit trade, and the sooner in force the better for all. Special reference was also made to the "Fruit World" for its untiring efforts to bring the reform about.

Complaints were made at the meeting of the use of incorrect scales at the Victoria Market, delegates stating they had made purchases of goods which to all appearances were correct when they purchased from the vendors but which were often many pounds underweight when weighed on accurate scales at their shop, the Secretary was instructed to lodge a complaint with the proper authorities on the matter as with peas and beans at the present exorbitant prices fruiterers cannot afford to be robbed in that manner.

Banana Posters.—In an endeavor to promote the sale of Australian Bananas, the Secretary reported he had been given a number of very handsome posters by the Commonwealth Banana Committee, and would have pleasure in distributing one to each of the principal shops in the Metropolitan area.

During the evening an enlarged framed photo, of the executive committee was presented to the retiring President, Mr. A. E. Miller, by Mr. A. Judd, who paid tribute to the great amount of work that had been done by Mr.

Miller during his term of office in the interest of the retail trade, the recipient in responding stating he had always tried to do good and would endeavor in the future to do the same always.

### JAVA'S IMPORTS OF APPLES.

According to official reports received by the Dept. of Commerce from Java, imports of Apples into Java and Madura (Netherlands East Indies) in 1932 amounted to 68,000 boxes (44 pounds) as against 75,000 boxes in 1931.

The countries from which supplies were received in 1932 were Australia 37,000 boxes. U.S.A. 16,000, Japan 12,000 and Canada 1,500.

#### FRUIT GROWING IN SOUTH AFRICA.

The commercial acreage of all deciduous fruits combined, in the Union of South Africa in 1930 were 115,000. There were also 75,000 acres of Grapes, 55,000 citrus, 13,000 Bananas, and 11,000 acres of Pineapples. Most of the vineyards are round about Paarl.

# The BAVE - U SPRAYER

has been remodelled; the pump has eccentrics enclosed running in oil, eccentric shaft fitted with ball races, valves detachable and interchangeable.

The water-cooled thermo-syphon engine has every refinement, including ball races in crank case bearings, etc.

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"BLACK LEAF 40" and all Orchard Requirements

Melbourne Sydney
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Reliable Fruit Agents
Over 50 Years Experience
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Personal supervision of every consignment,

Cheques posted promptly.

Drop us a Line or Cable: "Peachbloom," Dunedin.

## Queensland

## FACTORY OUTLETS FOR FRUIT.

Activity in Queensland.

The members of the Deciduous Section Group Committee of the Committee of Direction of Fruit Marketing, Queensland, have furnished a report on the deciduous factory season, 1932-33. A total of 5151 tons of Plums was absorbed. The week before Christmas heavy quantities came in, 1,203 bushel cases and 1,453 tins arriving at the factory, states the "Queensland Producer." Great help was given by the Victoria Cross Manufacturing Co., the Summerland Preserving Co., and Butt & Sons in handling the heavy quantities. The experience of handling this record crop shows that the recovery from early Plums is not as good as from later varieties; that in seasons of heavy supply, acceptance of Plums prior to Christmas is unfair to growers of later varieties; that growers of early Plums are inclined to consign the whole of their fruit irrespective of size and quality; that early Plun's compare unfavorably with the late varieties. The Wilson Plum is better for dessert than for canning.

Throughout the season, Pineapple loadings amounted to as high as 40,000 cases in the peak week.

Of recent years the two largest factories have absorbed from 23 to 95 tons of Peaches each season, but this year they had sufficient pulp on hand to last till next season. The outlet for factory Peaches was discouraging, but with the advent of Clingstones prospects brightened, as a canner had experimented successfully with the use of Peaches as a substitute for Papaws in fruit salad. This factory accepted a reasonable quantity of Peaches.

All canners are of the opinion that Queensland Apricots are not suitable for jam making. Growers who are prepared to supply sound, clean, well-colored fruit are reasonably assured of factory outlet.

The Nectarines were generally well up to standard. About 3\frac{3}{4} tons were placed with canneries.

Queensland factory requirements were lighter this year and there was no outlet in Sydney as in the previous year. Preference was given to growers whose fruit had been

affected by hail throughout the season.

The Quinces handled early in the season were of excellent quality, but not sufficiently ripe, and instructions were given to growers to hold the fruit until ripe. In the meantime fruit fly and codlin moth affected the fruit that i' was useless for market. When factory outlet was again

offered to growers, heavy loadings of Quinces were made.

On the recommendation of the Banana Industry Protection Board, the Minister of Agriculture, Brisbane, has approved of a policy for the planting of Bananas for the coming planting season. This policy guards against the spread of bunchy top, beetle borer and other diseases, and should tend to improve Banana culture throughout that

## ROBSONS LIMITED

(Wm. Robson, Managing Director)

Guarantee satisfaction to Clients. Send us a trial consignment.

## FRUIT EXCHANGE, BRISBANE, Qld.

Account Sales and Cheques sent promptly. Shipping No. 28.

### QUEENSLAND FARM PRODUCE AGENTS ACT.

A proclamation has been issued under the Queensland Farm Produce Agents Acts, bringing into force the Amendment Act passed last Session. Regulations have also been approved embodying regulations originally in existence, together with additional ones giving effect to the provisions of the amending Act of 1932.

A regulation has also been inserted, providing that where a farm produce agent has made to a purchaser of Bananas sold by such agent, any allowance, whether for short counts, breakages, or immature fruit, he shall clearly show the amount of the allowance and the reason therefor on the account sales rendered by him.

The new regulations prescribe the form of application for a farm produce agent's license, and fix the amount of the bond or security to be given when applying for a

license.

## GRAPE PLANTS IN QUEENSLAND.

## Removal Within the Brisbane Area Prohibited.

Owing to an outbreak of vine phylloxera in the Pinkenba district (Queensland), a proclamation under the Diseases in Plants Act has been issued, declaring the area of the City of Brisbane as a quarantine area for the purposes of the Acts, and also prohibiting the removal from any nursery, orchard, or place within the boundaries of such area, of all plants of the genus Vitis, with the exception of the fruit.

The Wilson Plum.—The Wilson Plum in Queensland has been found essentially a dessert Plum, and is not popular with factories if sufficient supplies of other varieties are available later in the season.

### QUEENSLAND CANNED PINEAPPLES.

A marked improvement has been made in the shipment of Queensland canned Pineapples this season. From July 1, 1932, to April 30, 1933, 146,517 dozen of 16 oz., 20 oz. and 30 oz. canned Pineapples have been shipped overseas as compared with 128,398 dozen last year, representing an increase of 18,119 dozen. 86,136 dozen went to U.K., followed by Canada with 69,714 dozen. 1,500 dozen of 61 lb. canned Pineapples have also been shipped this season to Canada.

#### QUEENSLAND SHOW DATES, 1933.

Caboolture.—July 13-14. Esk.-July 21-22. Maleny.-July 26-27. Royal National.-August 7-12. Crow's Nest .- August 23-24. Nerang .- October 13.

Highest Prices.

Prompt Returns.

## A. S. BARR

FRUIT EXCHANGE, BRISBANE,

QUEENSLAND.

Wholesale Fruit Merchant and Growers' Agent.

A Trial Solicited. Returns Speak for Themselves. Established 1888. Shipping No. 19.

### QUEENSLAND.

Brisbane (22/6/33).—Bananas, Cavendish, best 12/6 to 14/6 case; other grades 7/6 to 11/9; Vic. Pears: JCS 12/- to 13/- case; BB 8/- to 10/-; WC 9/- to 10/-; WN 5/- to 7/-; Vic. Apples: Jons. 6/- to 7/-; RB 5/- to 6/-; Qld. Navel Oranges, local 4/- to 6/-; special 7/-; Qld. Oranges 3/- to 4/-; special 5/-. Qld. Mandarins, Glens, special 9/- to 10/-, other grades 5/- to 7/-; Emperors 5/- to 7/-: Scarlet 4/- to 7/-; Fewtrells 3/- to 5/- case. Local Lemons 2/- to 3/- half case; Navel Oranges from the South 7/- to 7/6; smoothleaf Pines 2/6 to 3/6, special 4/-: Ripley Pines 3/- to 5/- case; Papaws, Yarwun 7/to 8/- Pineapple case, Gunalda 3/- to 4/- bush. case; local Papaws, best 2/- to 4/-, inferior 1/- to 1/6 case; Old. Apples: G. Smith 6/- to 8/-; Passionfruit, best 4/to 5/-, special 7/- case, inferior 1/6 to 2/6; Apples from Kentucky 6/- to 9/- case; Cust. Apples 2/- to 3/- case, special 3/6; Grapefruit 2/- to 3/- case. The ruling rate for Tas. Apples was: Jons. 6/- to 8/-; SPM 4/- to 7/-; NYP 6/- to 8/-; ARO 6/- to 7/-; Sturmers 5/- to 7/-; Tas. Pears: Jos. 9/- to 14/- case; WN and WC 9/- to 14/-; for special Jon. Apples from Vic. from 9/- to 10/case ruled, others selling from 6/- to 8/6 case; RB 6/to 7/6 case.

#### TRADE WITH NEW ZEALAND.

### N.Z. Fruit Merchants Request Lifting the Embargo.

Dunedin (June 5).—Messrs. Reilly's Central Produce Mart report as follows:—

During the week we N.Z. fruit brokers of Wellington waited on the Hon. Mr. Coates, the Minister of Customs, in reference to the Australian embargo. Fourteen delegates attended and the case was strongly presented in the main by the various members. The Minister, in his reply, guardedly advised the deputation of the obstacles to be overcome, if the embargo is to be lifted, or perhaps even modified. The South Island brokers also took advantage of the Minister of Agriculture's visit to Dunedin, and being granted an interview. presented the position as it affected the wholesalers, retailers, and the consuming public. They received a sympathetic hearing, and we really believe there is a possibility of the embargo being lifted, if not for the whole of the Australian fruits, for at least the citrus fruits grown in South Australia. Whether the Australian Government will lift the embargo in regard to New Zealand potatoes is problematical at present.

It will be rather serious if the embargo is not lifted in regard to Pineapples from Queensland, as supplies are now available and the Queensland Pineapple growers always look to N.Z. as a desirable market to forward consignments, and any restrictions in regard to the free distribution of this fruit would be recrettable.

## NEW ZEALAND.

Dunedin (15/6/33).-Messrs, Reilly's Central Produce Mart report as follows:-The past few days fortunately have been helpful to wholesalers. At the moment the embargo on Australian fruits is still in force, and unless this is lifted immediately it is going to be serious as far as consignors of Australian fruit are concerned and more serious for the consuming public in New Zealand. Fortunately there are ample supplies of Poorman Oranges and Lemons available from the North, and the large quantities of Apples, and particularly Pears that are available enables the public to secure full supplies of pip fruits. The "Maui Pomare" on her last trip from the islands, brought forward 6,600 cases of Samoans and 1,900 cases of Niues, which arrived in perfect condition, the distribution being 2,539 Samoans and 200 Niues to Wellington, 2,610 Samoans, 500 Niues to Christchurch, 250 Samoans, 100 Niues to Timaru, 200 Samoans to Oamaru, 650 Samoans 671 Niues to Dunedin, and 350 Samoans 150 Niues to Invercargill. Prices for this shipment are distinctly in favor of buyers.

A few Tomatoes and Grapes are still coming to hand, locals, also nice consignments from Christchurch.

During the week we sold: Half cases, Pears, W.N., 1/6, 2/6; W. Coles 1/6, 2/-. Passions, N.Z. Wanted. Bushel cases: Apples, Otago Central, Jons. 4/-, 7/-, Del. 4/-, 7/-, Sturmers 5/-, 7/-; cookers, choice 4/-, 5/-, others 2/-, 3/-. Pears, W.N. Coles, 4/-, 6/-; cookers, 5/-. Poorman Oranges, 9/-, 10/6. Lemons, N.Z., 25/-, 28/-; Cal. 65/-. American Cases: Oranges, Val., 40/-; Island repacks 20/-. Bananas, ripe Niues, 18/6.

#### WESTERN AUSTRALIA.

Perth (17/6/33).—Apples: Jon., dumps 4/- to 8/6; Dunn's 4/- to 8/-; R. Beauty 4/- to 8/3; Yates 4/- to 9/6 (special to 10/-); G. Smith 6/- to 10/-; Cleo. 5/- to 9/6; Doherty 5/- to 7/6, others 4/- to 7/6; Citrus, Navels, flats 2/- to 4/6 (inferior from 1/3), dumps 2/- to 6/-; Lemons 2/- to 4/-; Mandarins 5/- to 12/9; Pears, all varieties, flats 2/6 to 6/6; dumps 4/- to 7/-; Tomatoes, best to 14/- (others 3/- to 13/-).

#### SOUTH AUSTRALIA.

Adelaide (23/6/33).—Apples (eating), 3/- to 5/- case; do. (cooking), 2/6 to 3/6 case; Bananas 24/- to 28/- crate; Grapes (dark) 8/- case; Bonanas 24/- to 28/- crate; Grapes (common) 6/- to 7/-; do. (blood) 7/-; do. (Mandarin) 7/- to 8/-; do. (Navel) 6/- to 8/-; do. (Poorman) 4/- to 5/- case; Passionfruit 24/- case; Pears (eating) 5/- to 6/- case; do. (cooking) 2/6 case; Persimmons 8/-; Pineapples 14/- case; Pomegranates 4/- case; Quinces 3/- to 4/- case.

Do not run any Financial Risk with your Fruit but Consign it to

## HEDLEY GEEVES LIMITED

Telegraphic Address: "Apples, Brisbane."

(Hedley Geeves, Managing Director)

Registered Shipping No. 6.

## FRUIT EXCHANGE

#### BRISBANE

#### SELECTED AGENTS FOR:

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd. Harcourt Fruit Supply Co. Ltd. Victorian Central Citrus Assn. Ltd. Tasmania: State Fruit Advisory Board.

New South Wales: N.S.W. Central Citrus Assn. Ltd.

Batlow Packing House Co-op. Soc. Ltd.